Electron microscopy investigation of covid „vaccines" (SEM, EDX) – Comirnaty Omicron and Moderna

Dr. Geanina Hagimă

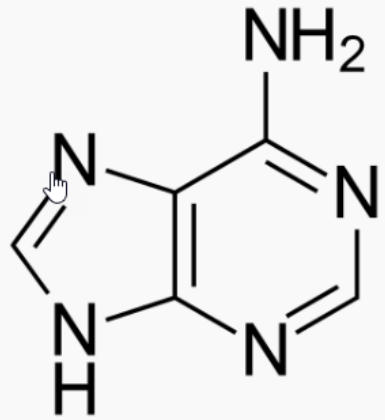
obstetrics and gynecology

Romania

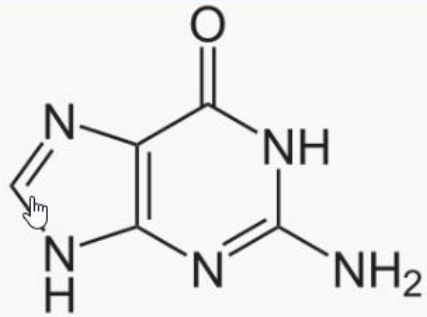
The structure of RNA

A ribonucleotide consists of a nitrogenous base (adenine A, guanine G, uracil U, and cytosine C), a pentose (ribose), and a phosphate.

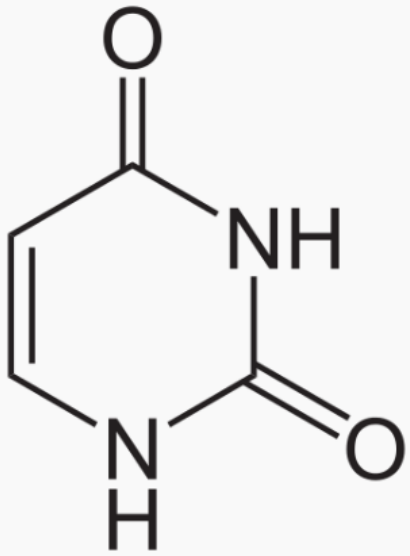
Adenină

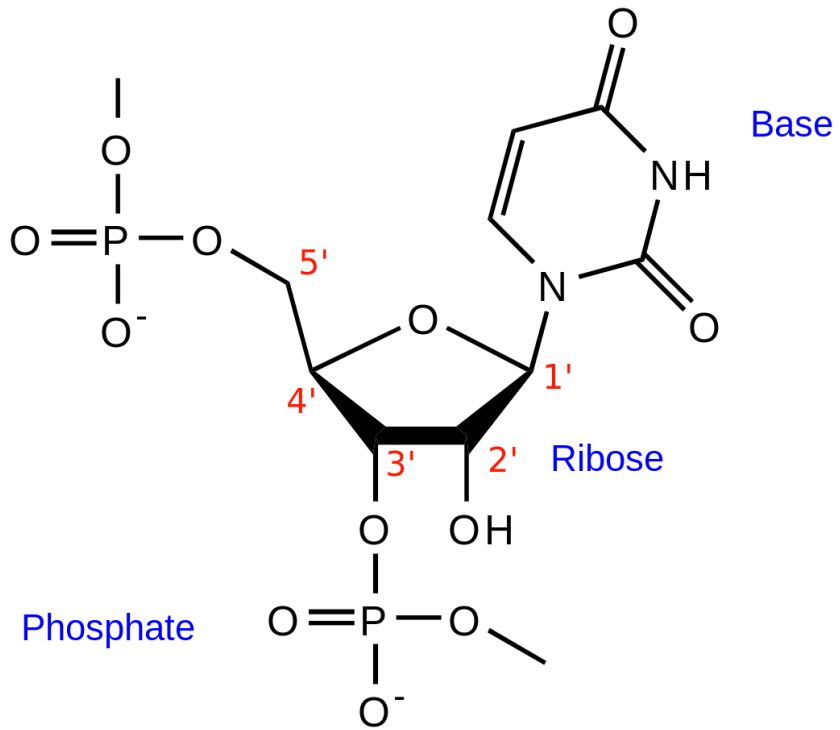


Guanină



Uracil





Citozină

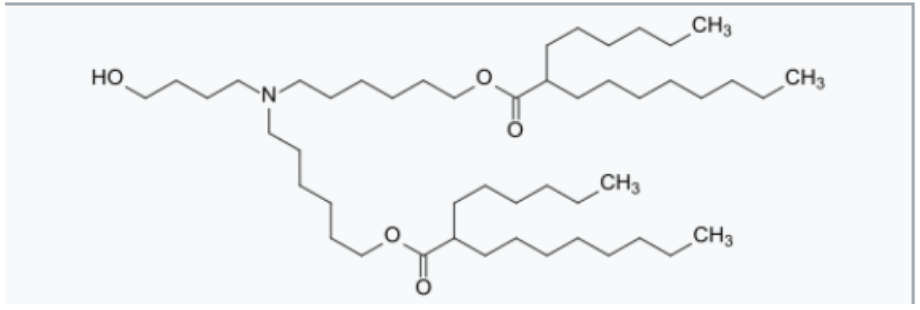
Pfizer–BioNTech COVID-19 “vaccine”

- **In addition to the mRNA molecule, the vaccine contains the following inactive ingredients (excipients**
- **ALC-0315, ((4-hydroxybutyl)azanediyl)bis(hexane-6,1-diyl)bis(2-hexyldecanoate)**
- **ALC-0159, 2-[(polyethylene glycol)-2000]-N,N-ditetradecylacetamide**
- **1,2-distearoyl-sn-glycero-3-phosphocholine (DSPC)**
- **cholesterol**
- **dibasic sodium phosphate dihydrate**
- **monobasic potassium phosphate**
- **potassium chloride**
- **sodium chloride**
- **sucrose**
- **water for injection**

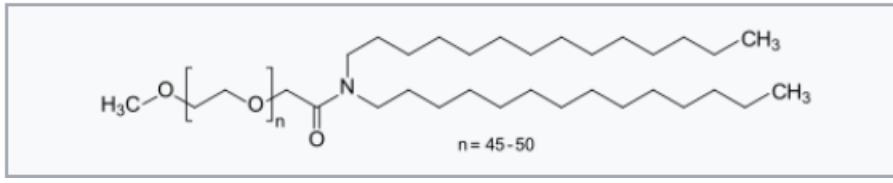
https://en.wikipedia.org/wiki/Pfizer%E2%80%93BioNTech_COVID-19_vaccine

Comirnaty Omicron (Pfizer) “vaccine”

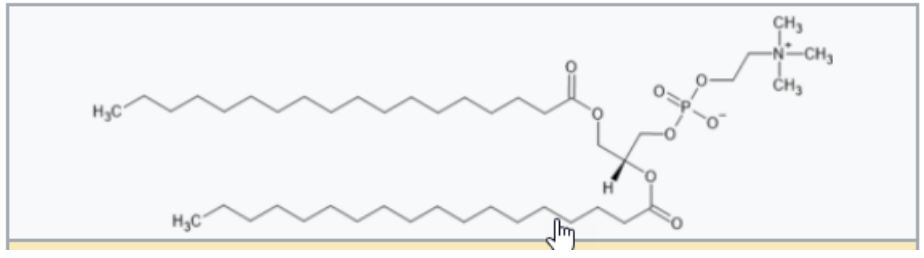
ALC-0315

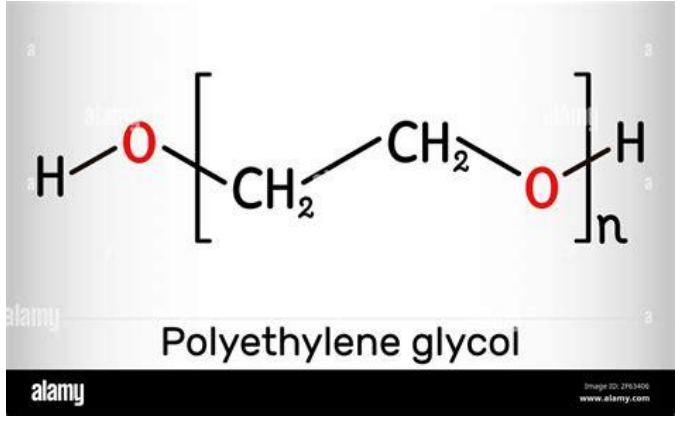


ALC-0159

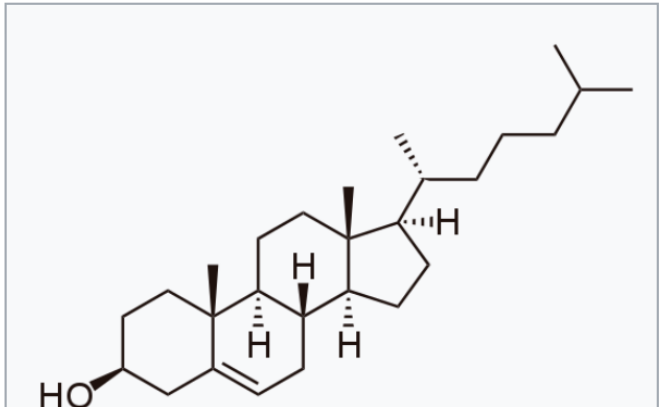


Distearoylphosphatidylcholine

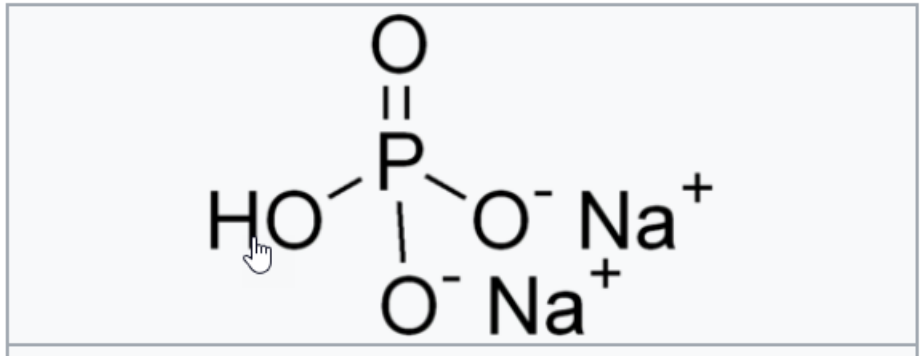




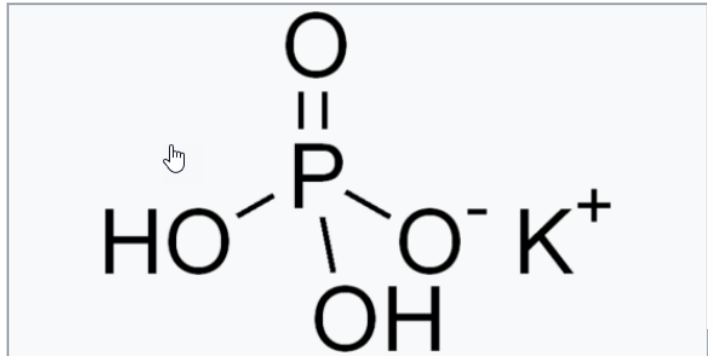
Cholesterol



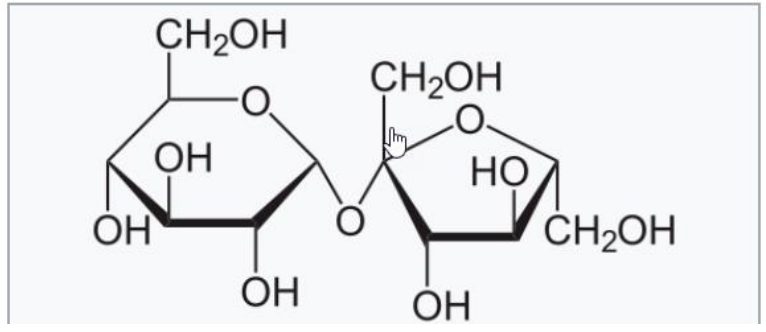
Disodium phosphate



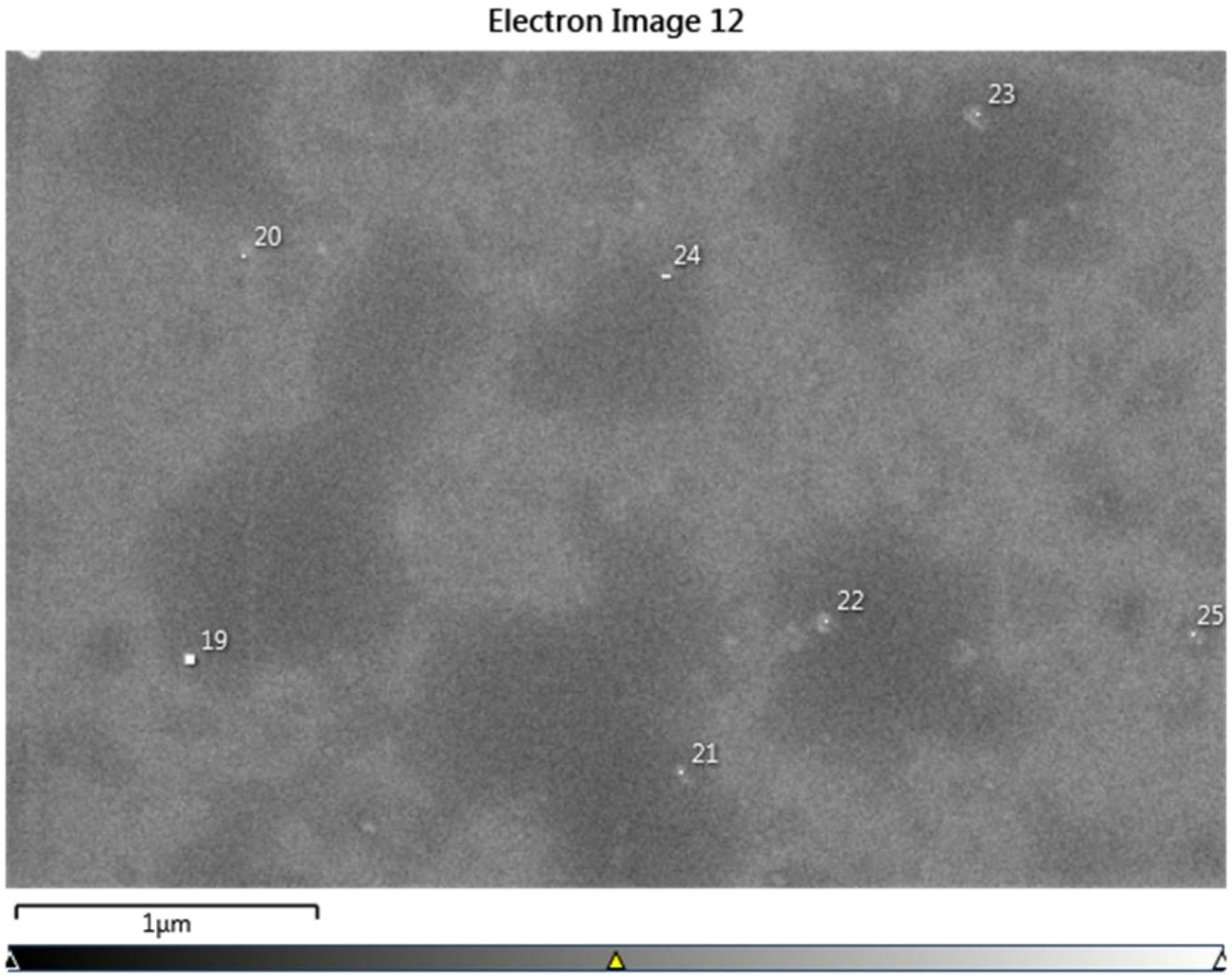
Monopotassium phosphate

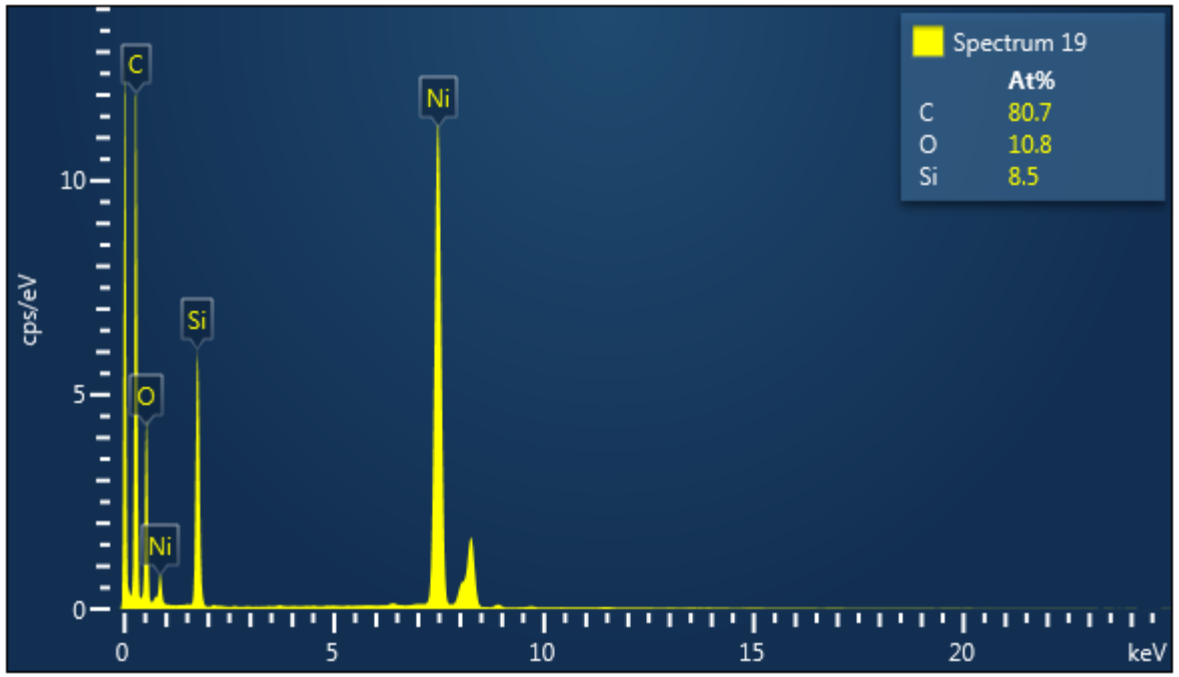


Sucrose

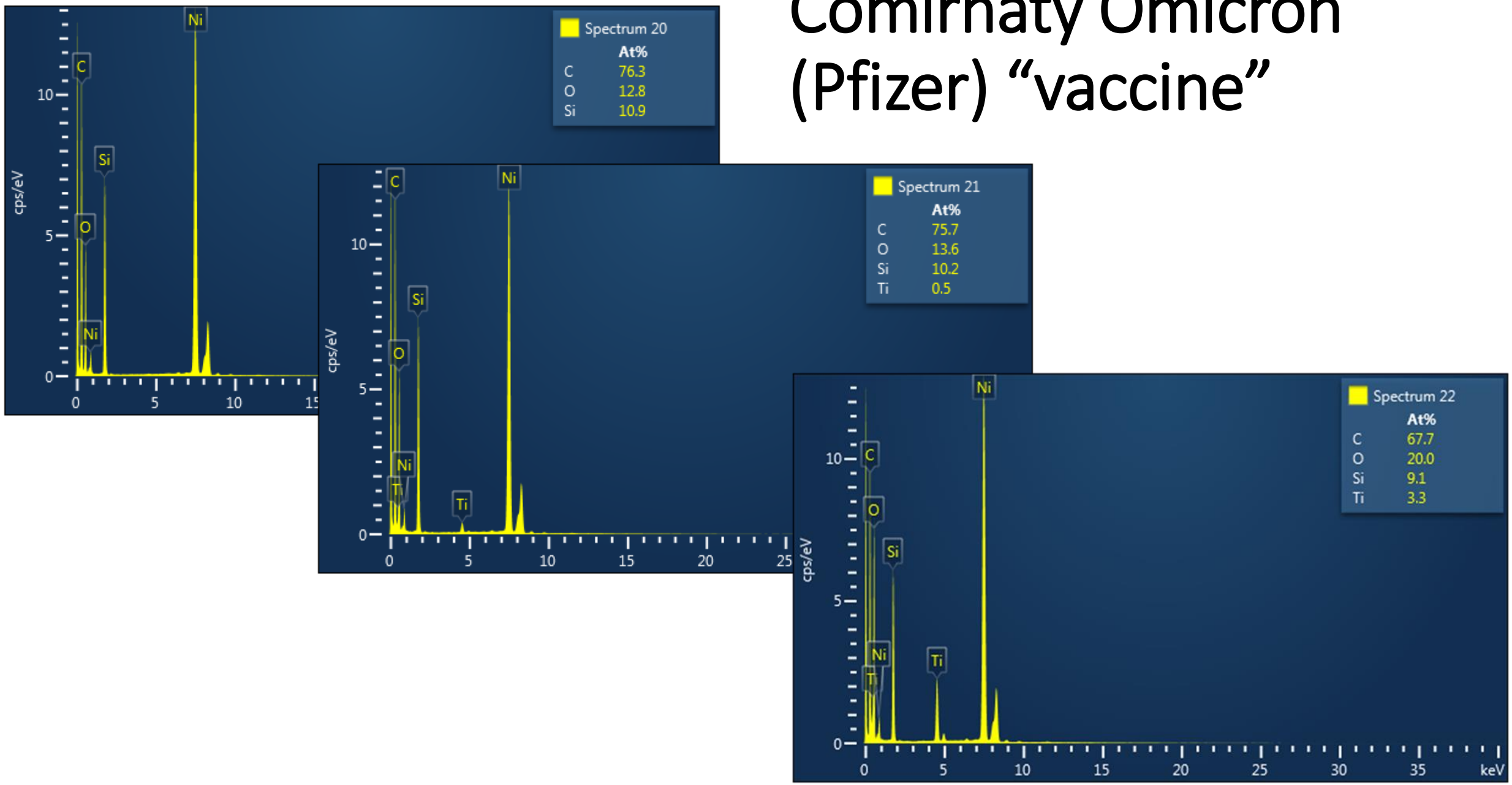


Comirnaty Omicron (Pfizer) “vaccine”

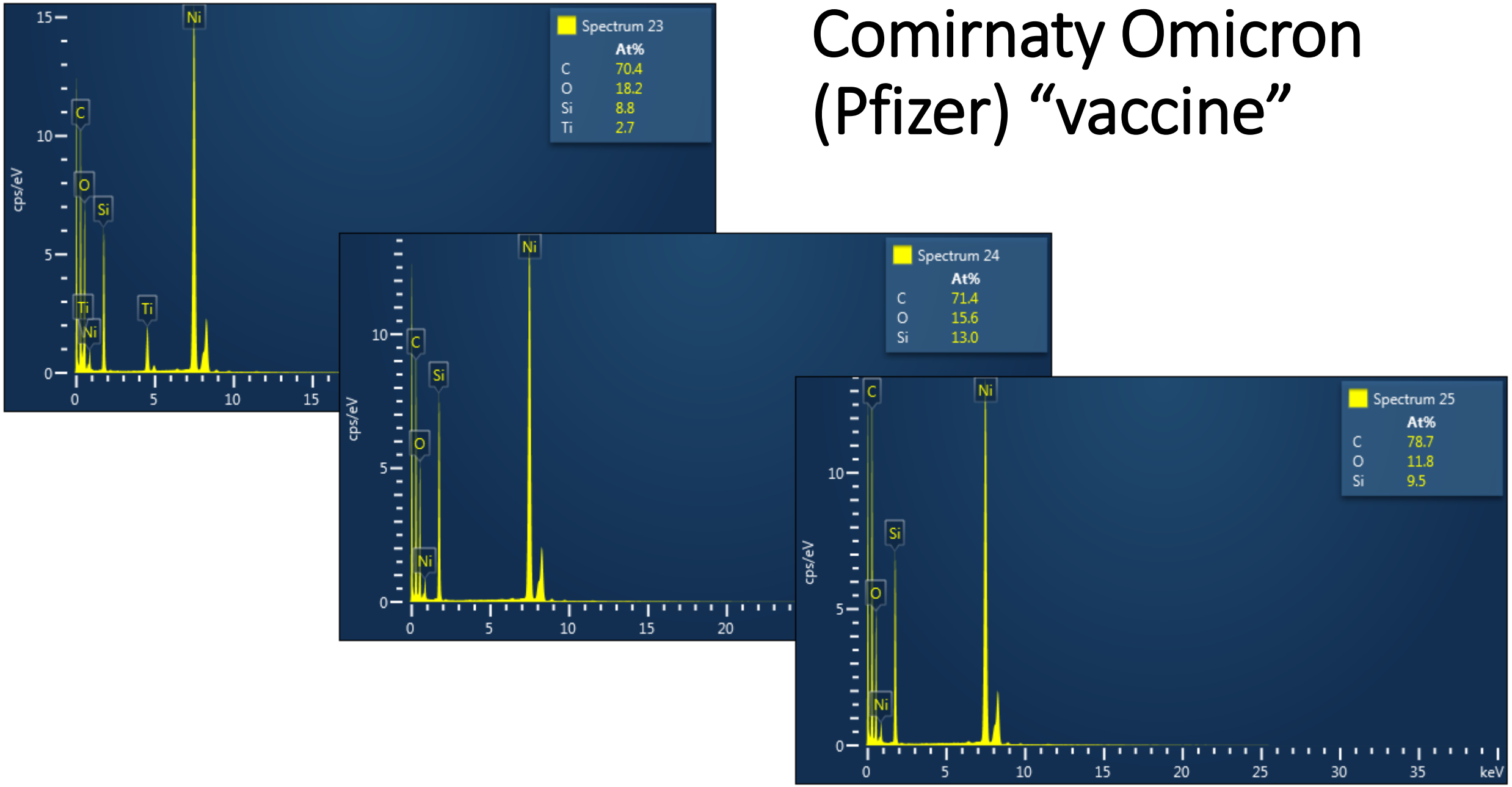




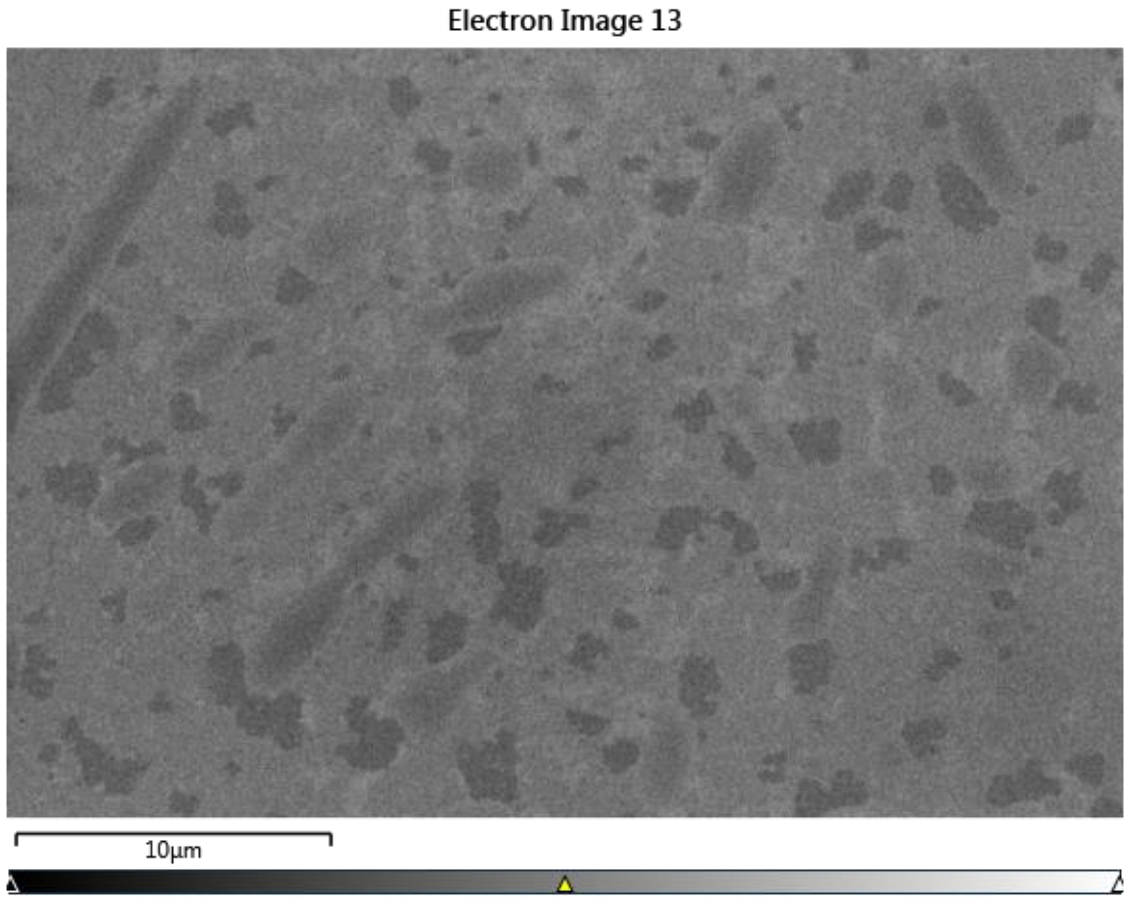
Comirnaty Omicron (Pfizer) “vaccine”

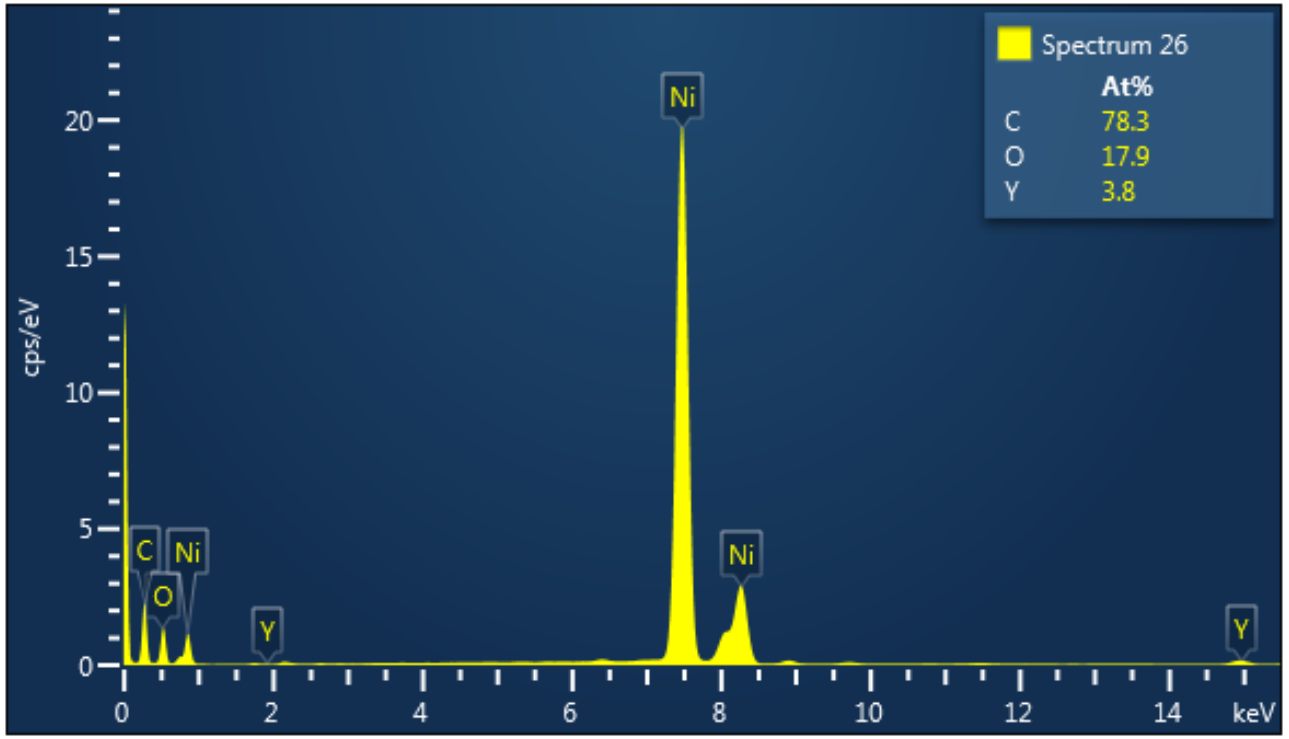


Comirnaty Omicron (Pfizer) “vaccine”

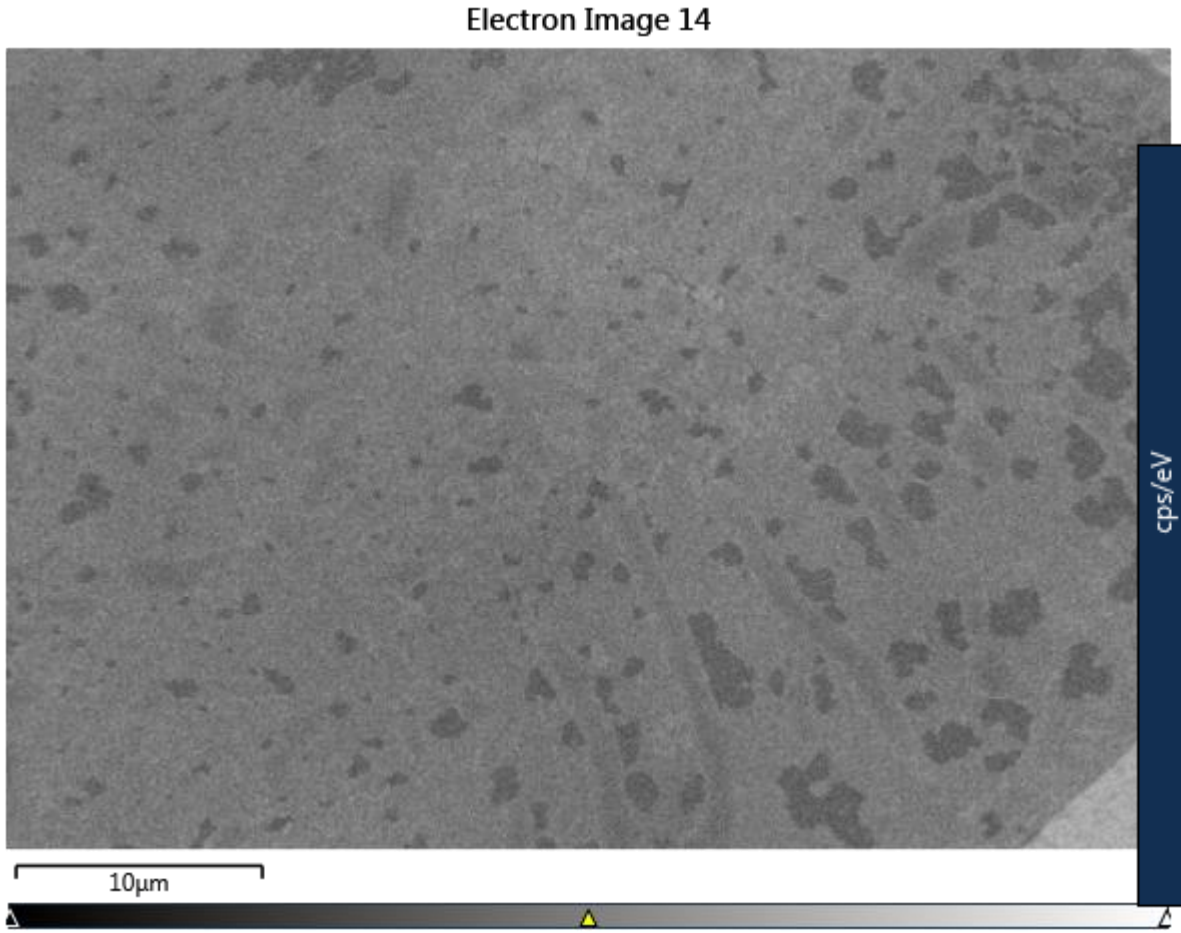


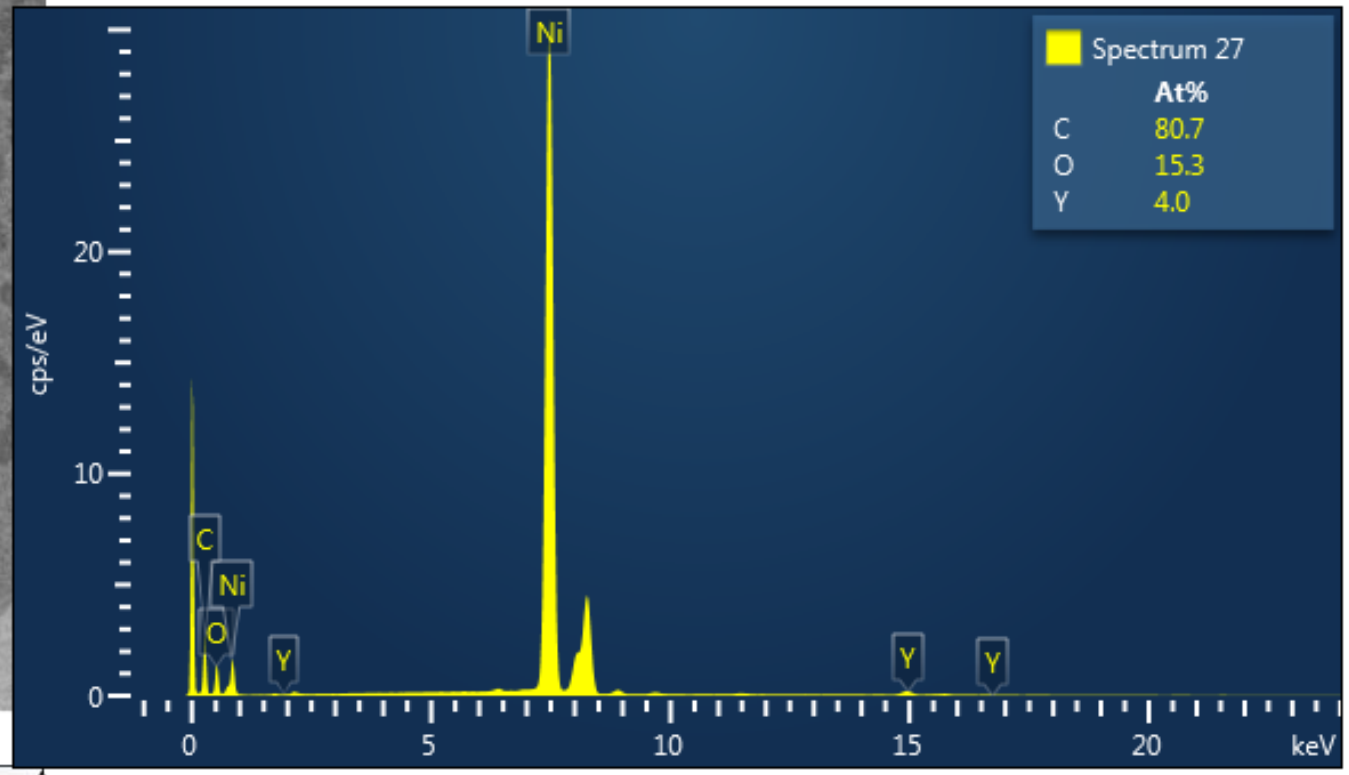
Comirnaty Omicron (Pfizer) “vaccine”



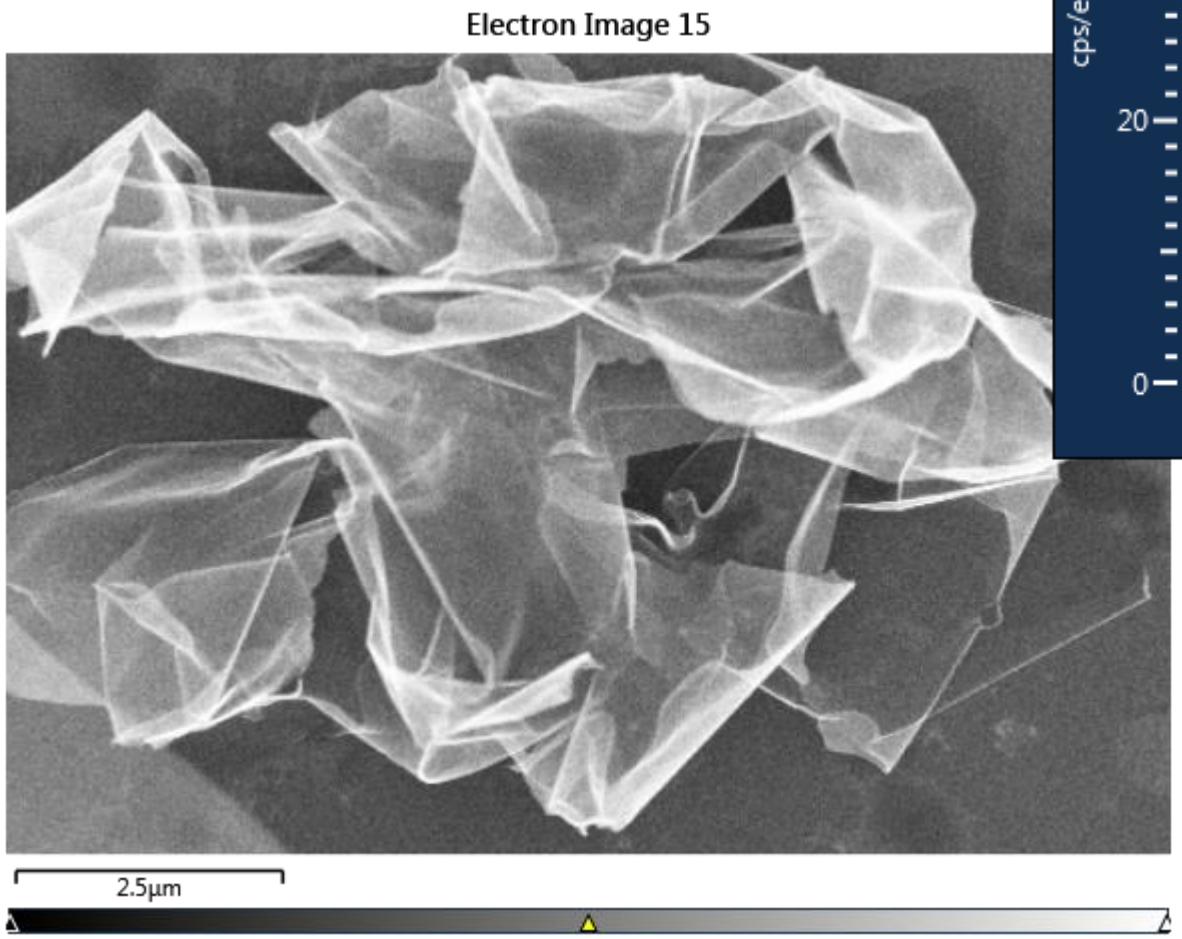


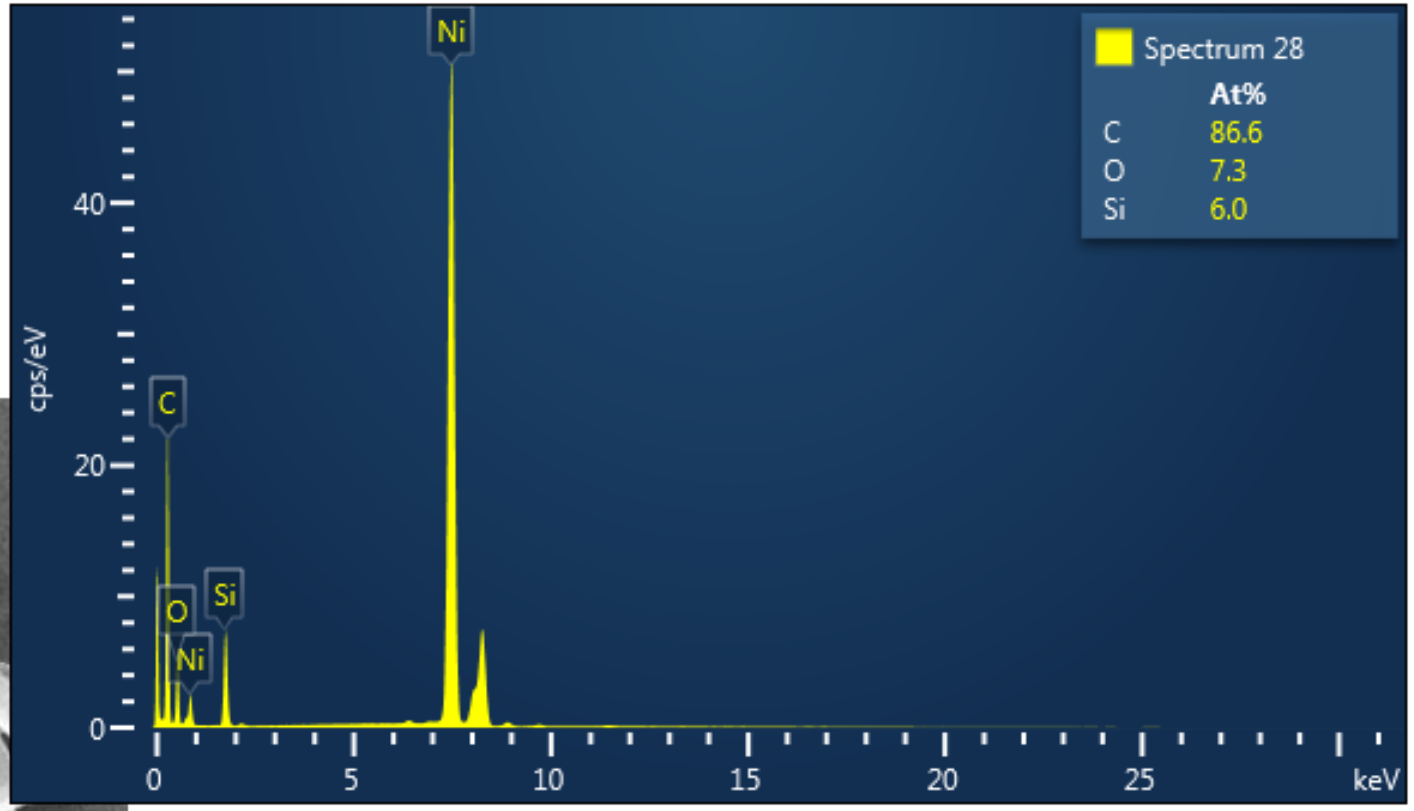
Comirnaty Omicron (Pfizer) “vaccine”



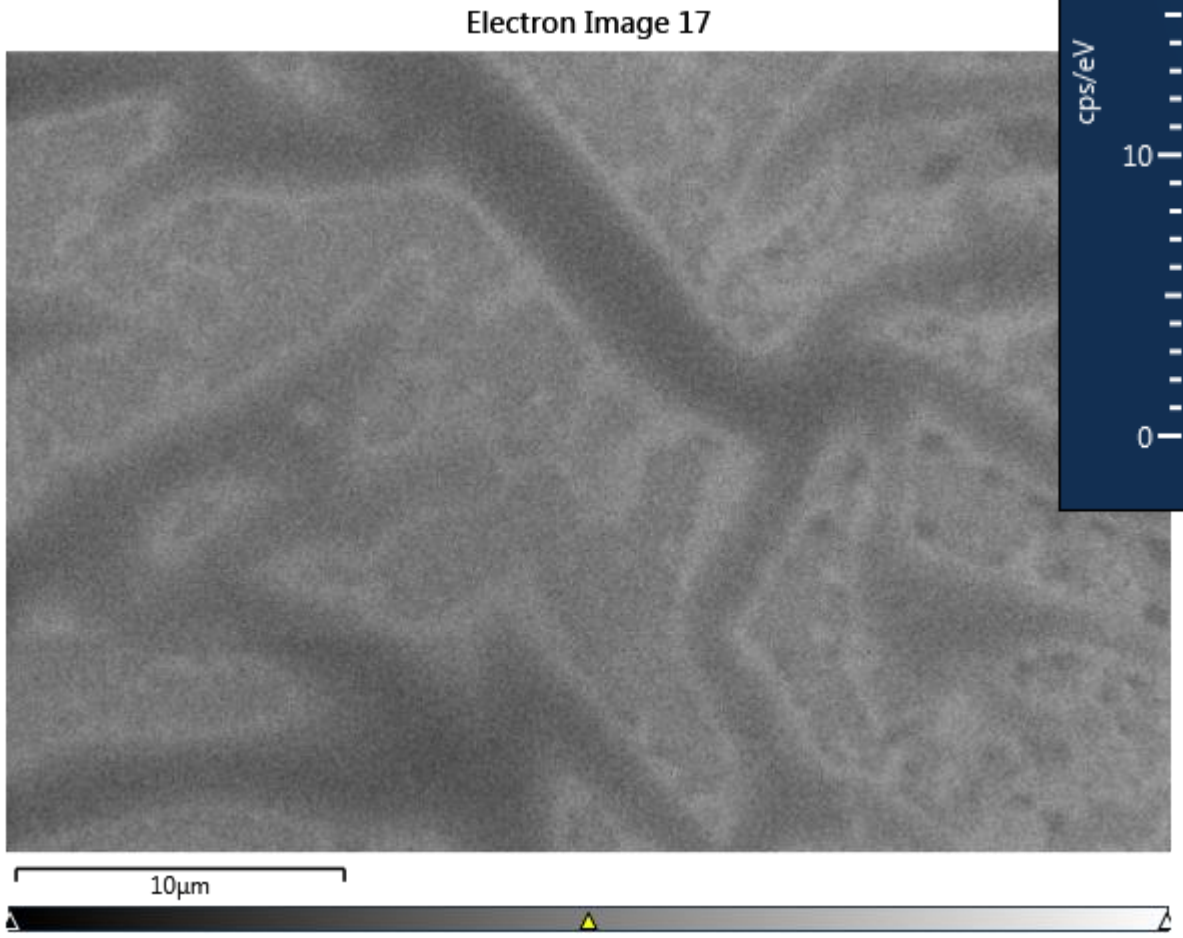


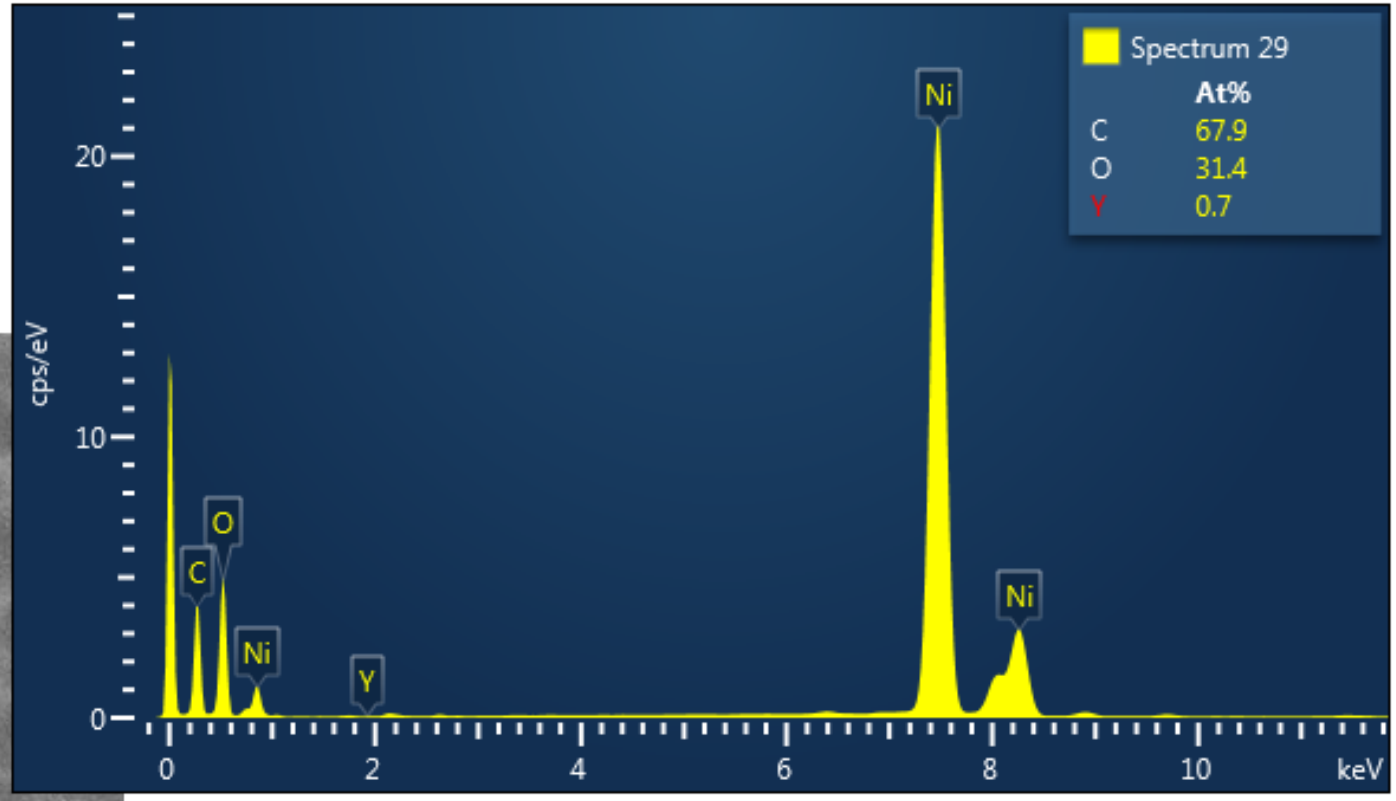
Comirnaty Omicron (Pfizer) “vaccine”



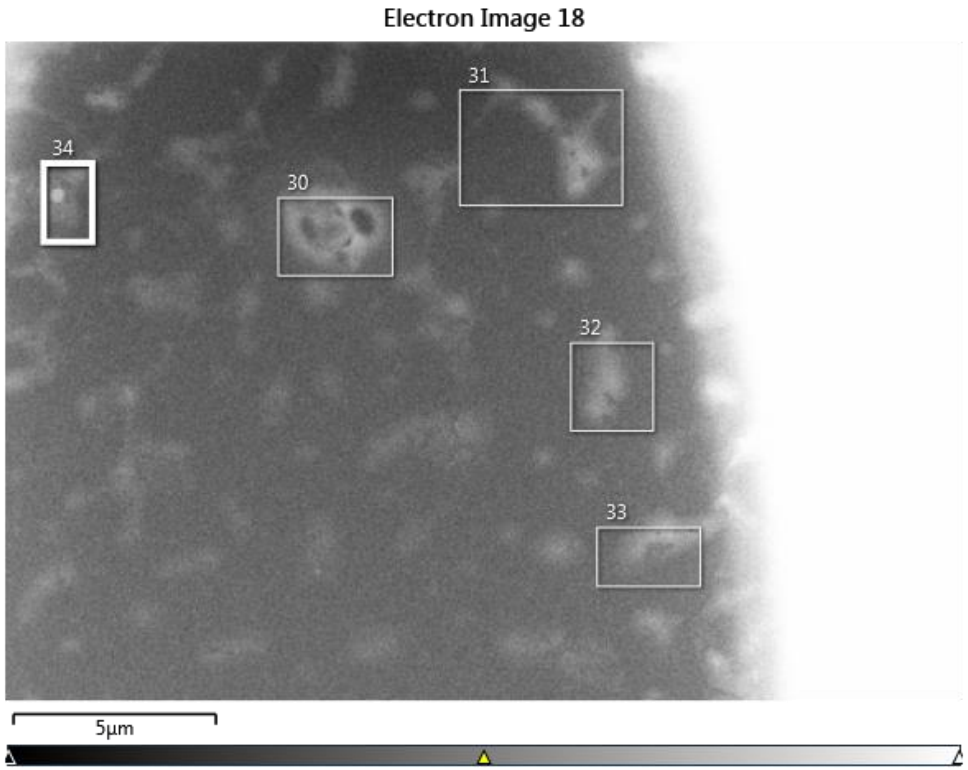


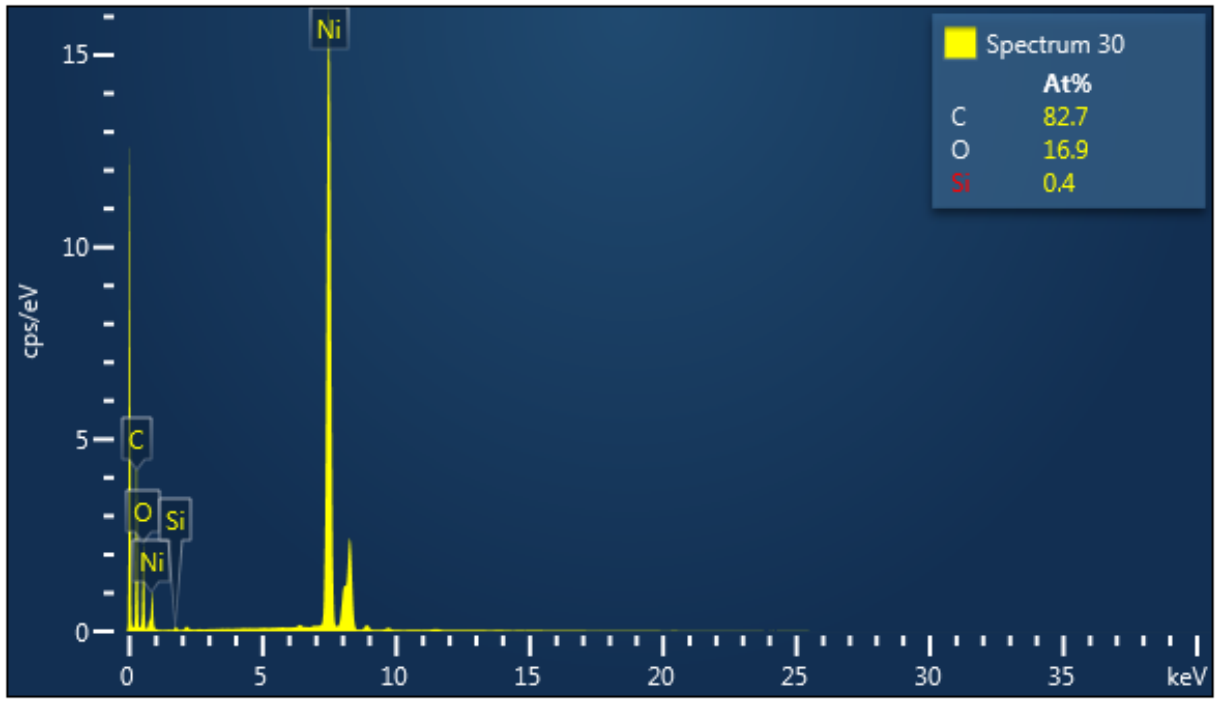
Comirnaty Omicron (Pfizer) “vaccine”

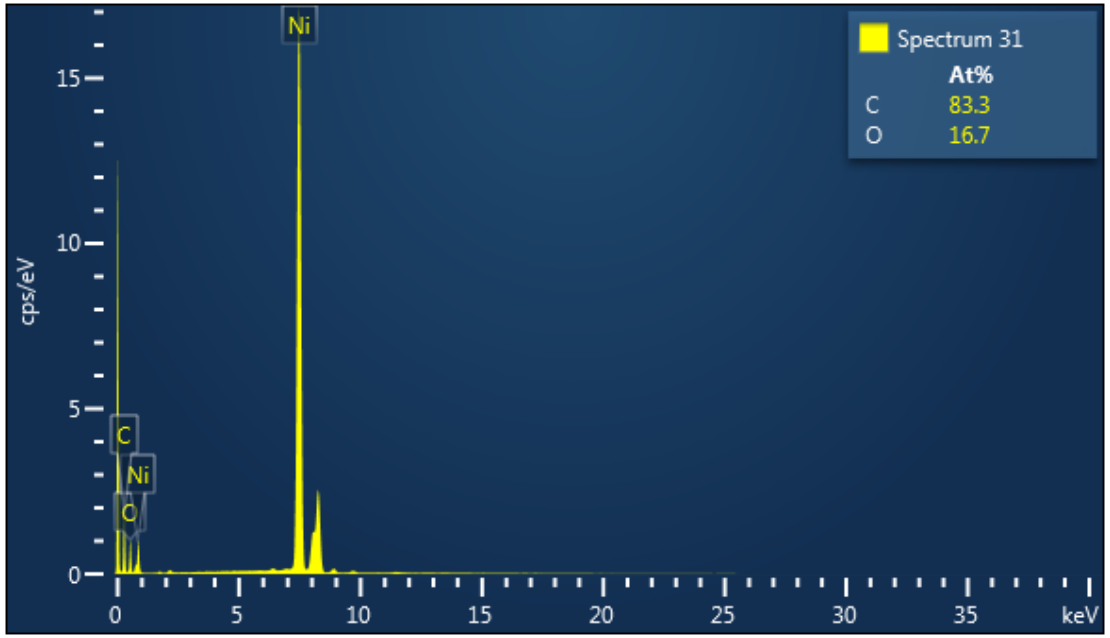




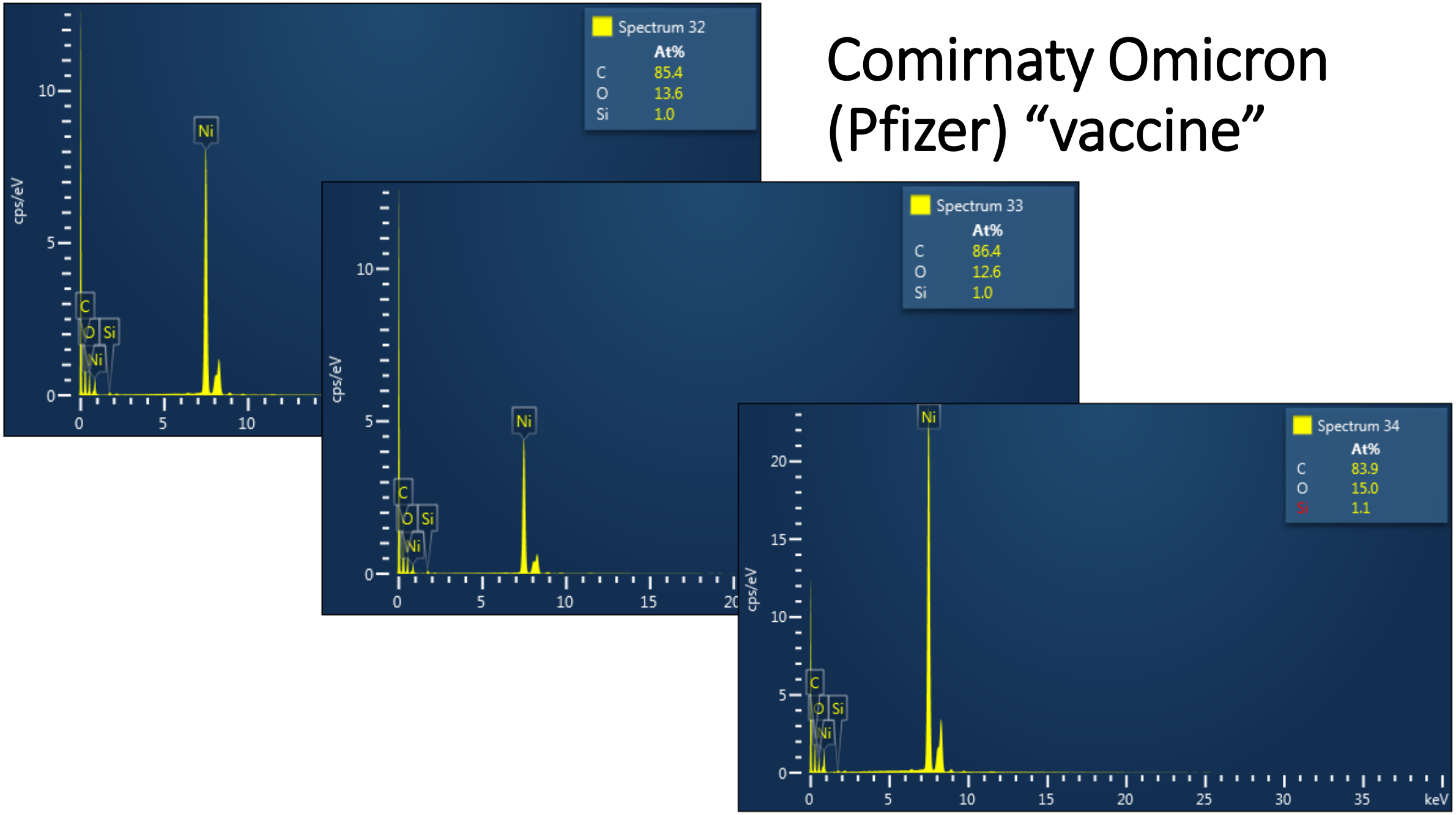
Comirnaty Omicron (Pfizer) “vaccine”



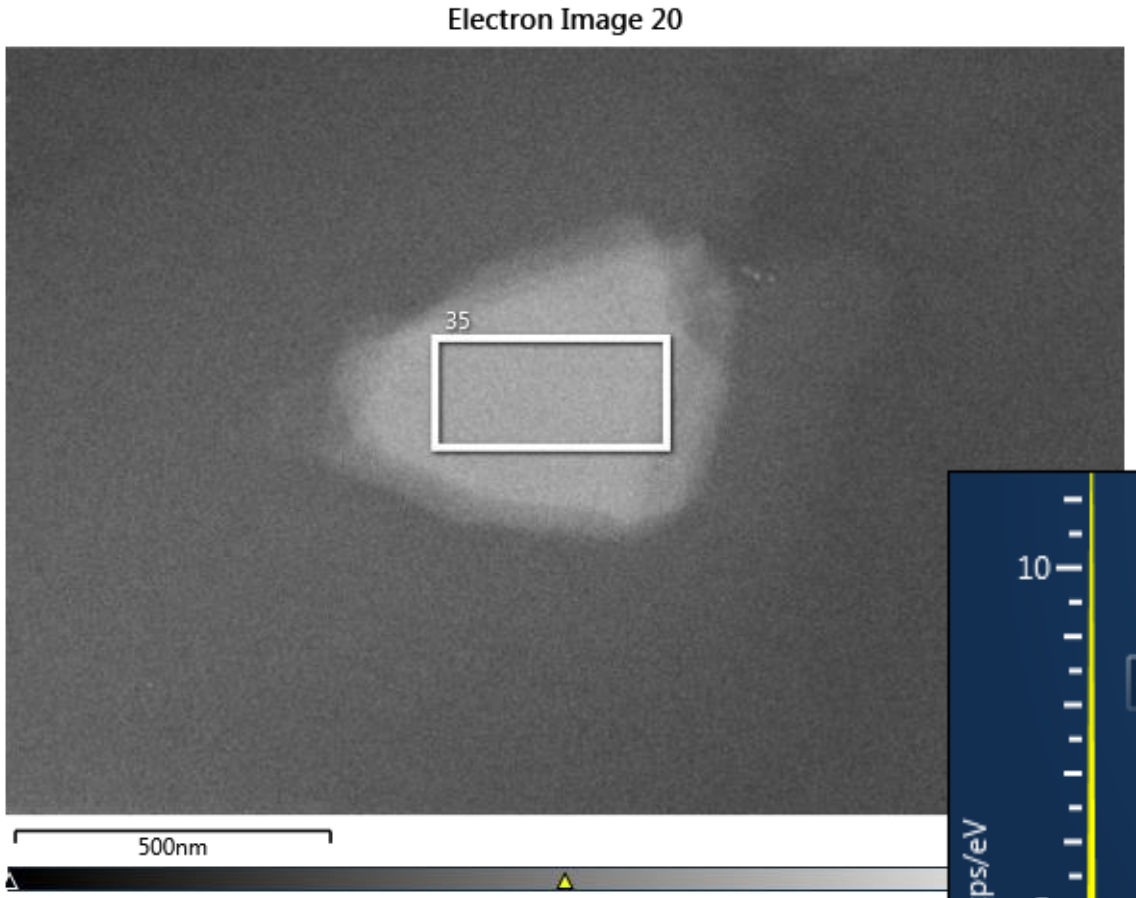


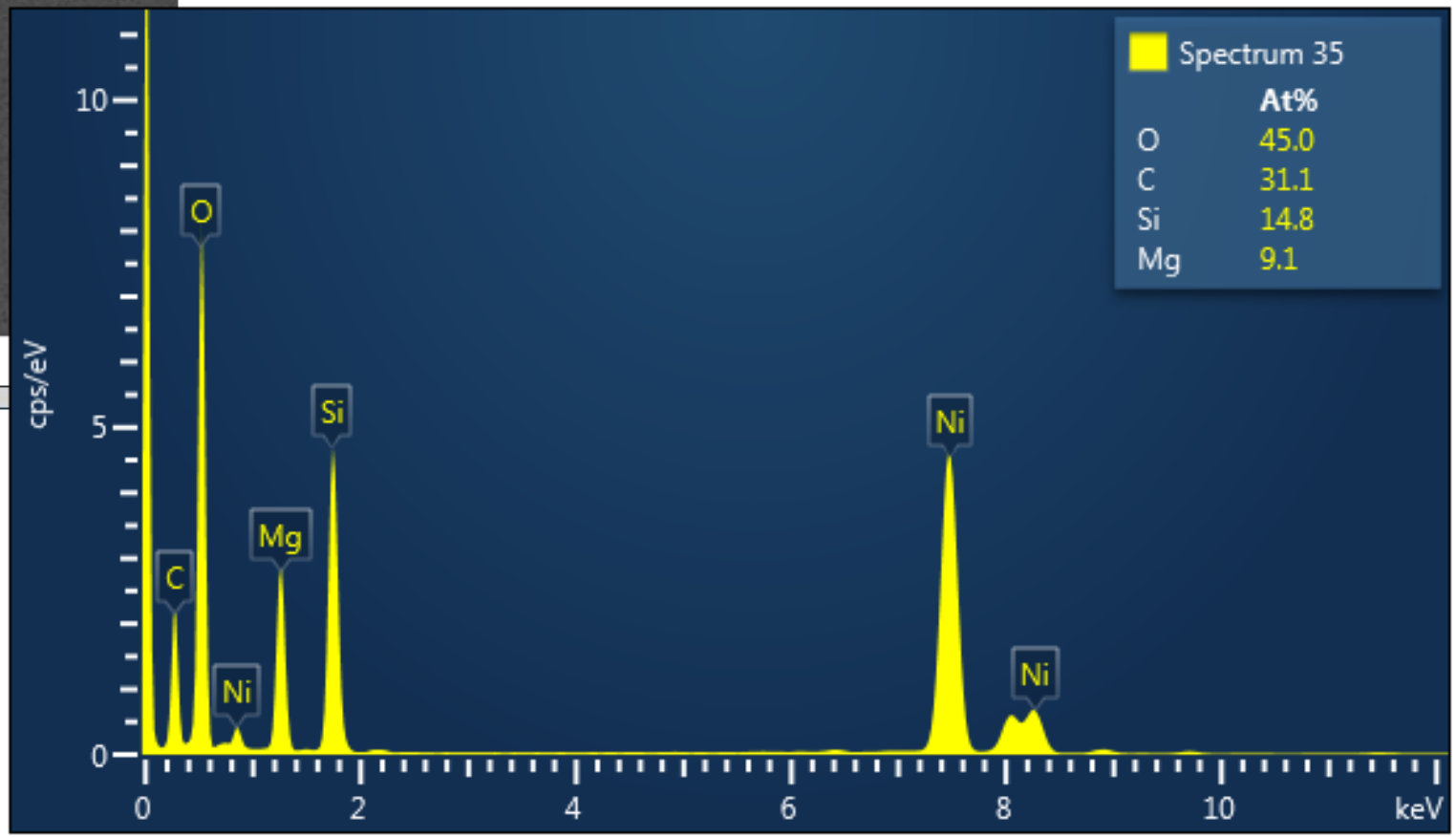


Comirnaty Omicron (Pfizer) “vaccine”



Comirnaty Omicron (Pfizer) “vaccine”





Moderna COVID-19 "Vaccine"

The vaccine contains the following ingredients:[40][39]

- The active ingredient is an mRNA sequence containing a total of 4101 nucleotides that encodes the full-length SARS-CoV-2 spike (S) glycoprotein,[99] with two mutations (K986P and V987P) designed to stabilize the pre-fusion conformation. The sequence is further optimized by:[100][101]
- all uridines (U) substituted with N1-methylpseudouridine (U → m1Ψ),
- flanked by an artificial 5' untranslated region (UTR) and a 3' UTR derived from the human alpha globin gene (HBA1),
- introduction of two additional stop codons,
- terminated by a 3' poly(A) tail.

https://en.wikipedia.org/wiki/Moderna_COVID-19_vaccine

Moderna COVID-19 "Vaccine"

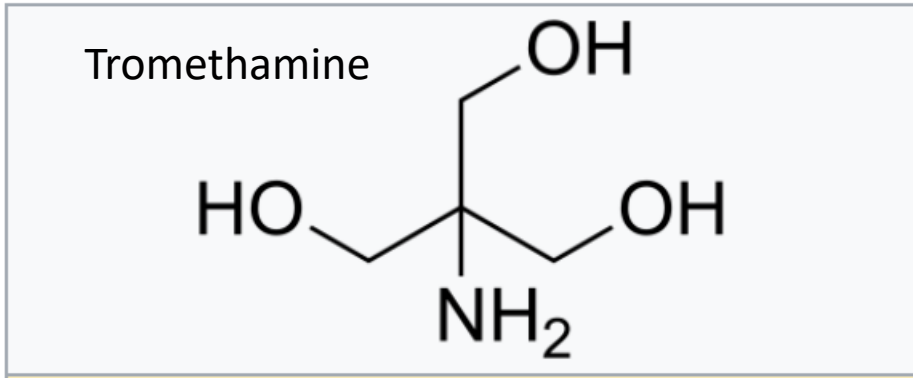
- The vaccine mRNA is dissolved in an aqueous buffer containing tromethamine, tromethamine hydrochloride, sodium acetate, and sucrose.[31] The mRNA is encapsulated in lipid nanoparticles that stabilize the mRNA and facilitate its entry into cells.[50] The nanoparticles are manufactured from the following lipids:
- 1,2-distearoyl-sn-glycero-3-phosphocholine (DSPC),[31]
- cholesterol,[31]
- PEG2000-DMG (polyethylene glycol (PEG) 2000-dimyristoyl glycerol (DMG)),[31] and
- SM-102[31]

https://en.wikipedia.org/wiki/Moderna_COVID-19_vaccine

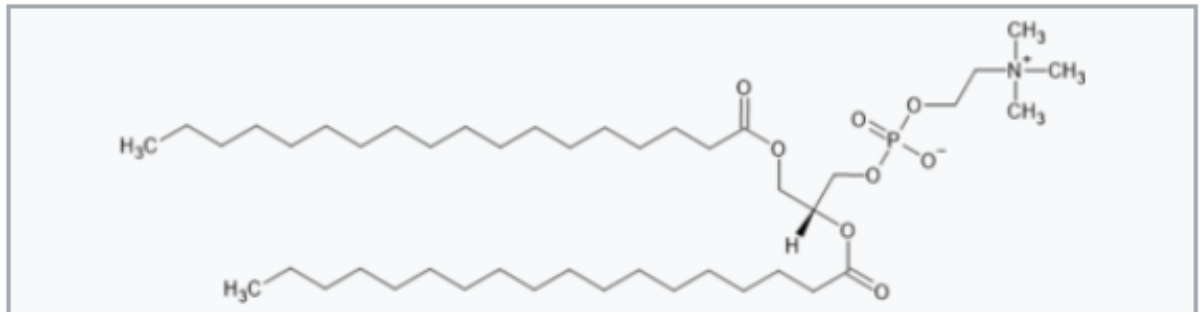
Moderna COVID-19 "Vaccine"

Tris

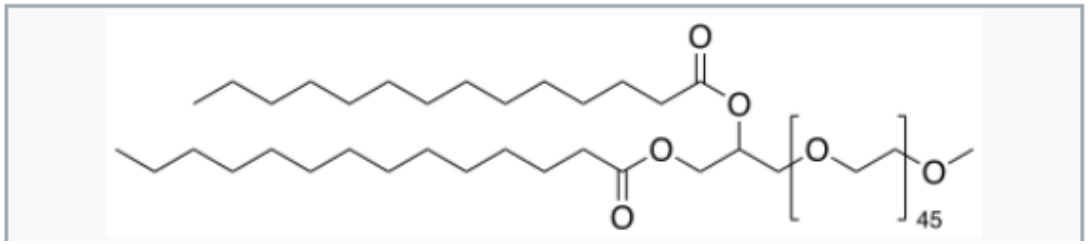
Tromethamine



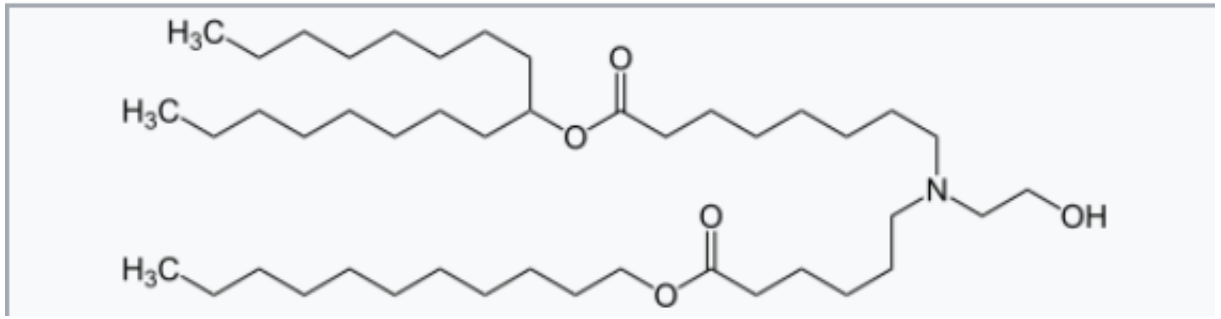
Distearoylphosphatidylcholine



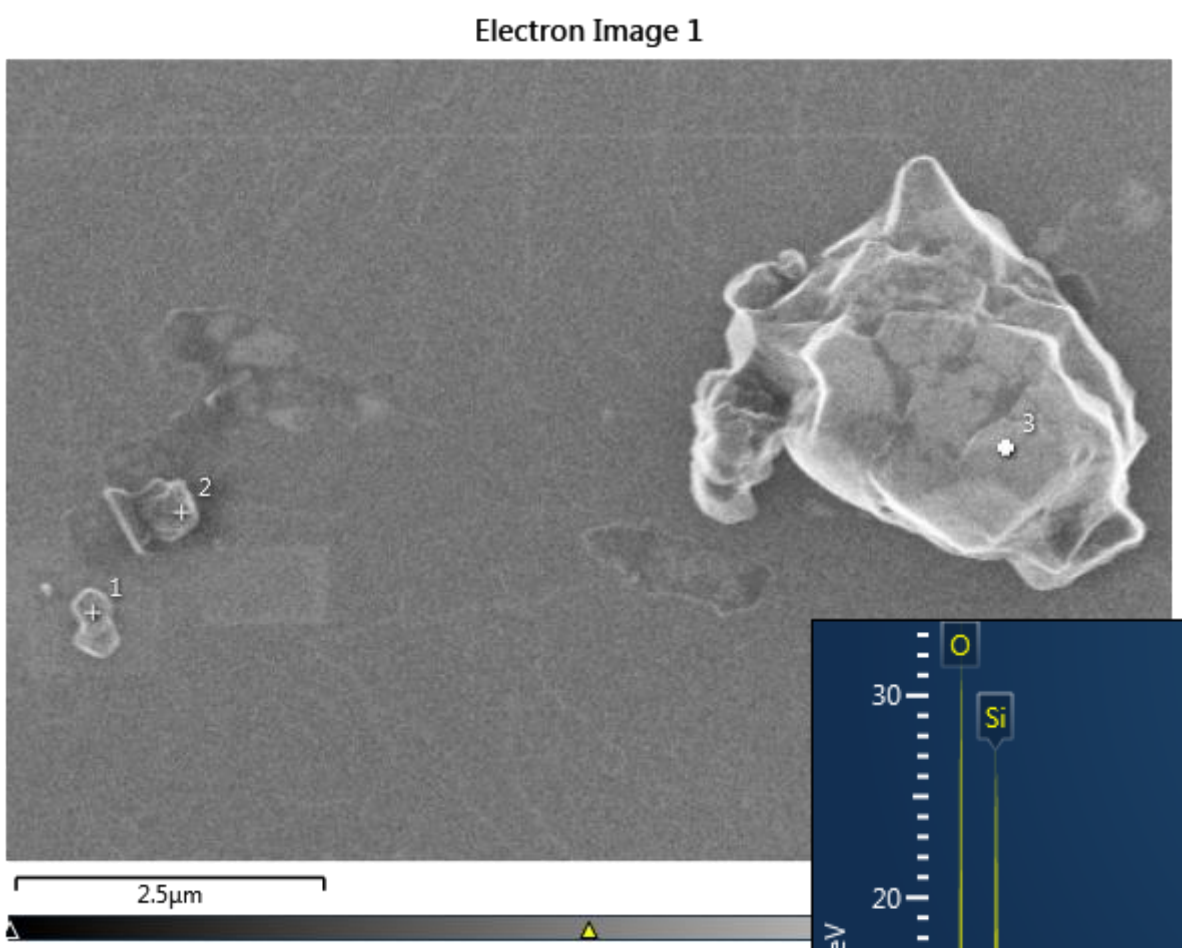
DMG-PEG 2000

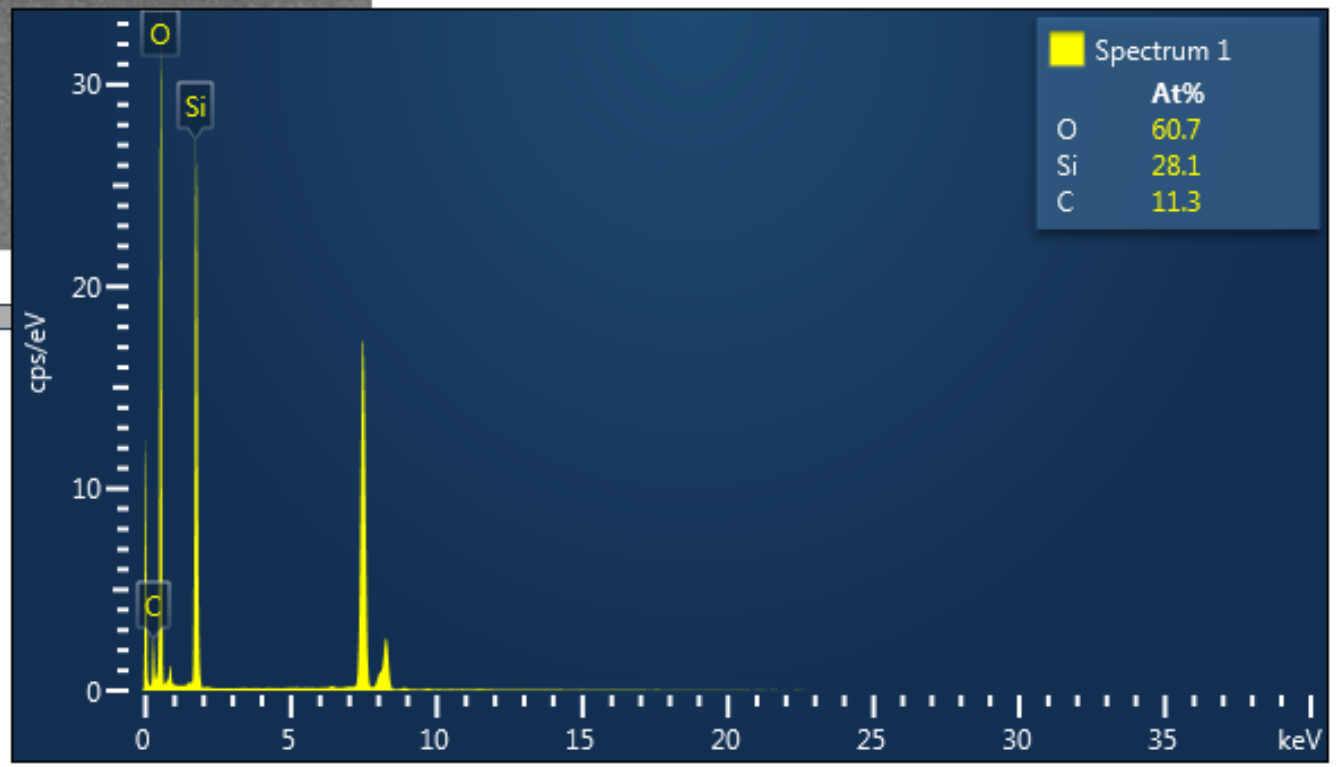


SM-102

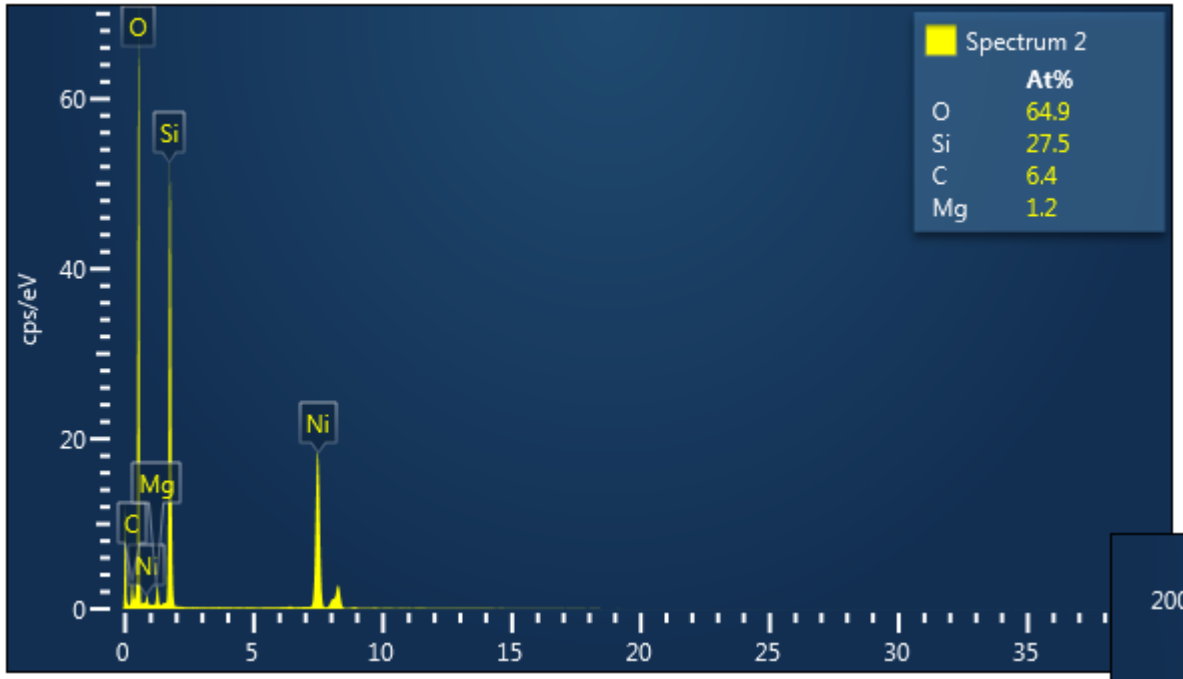


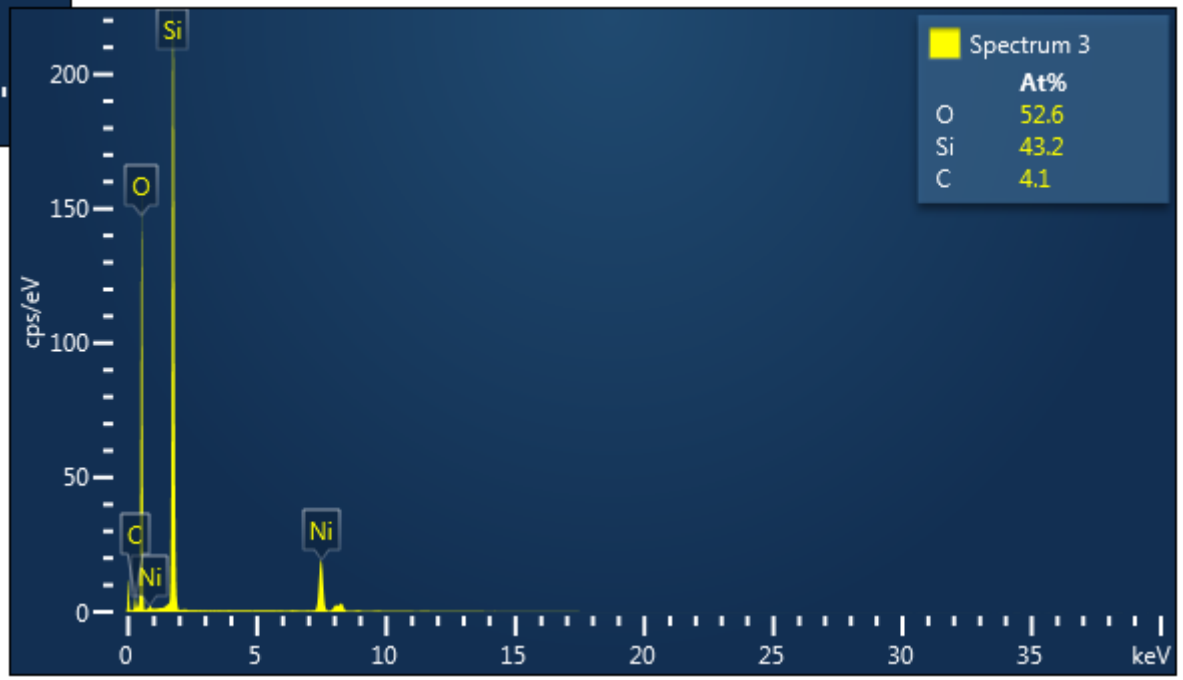
Moderna COVID-19 "Vaccine"



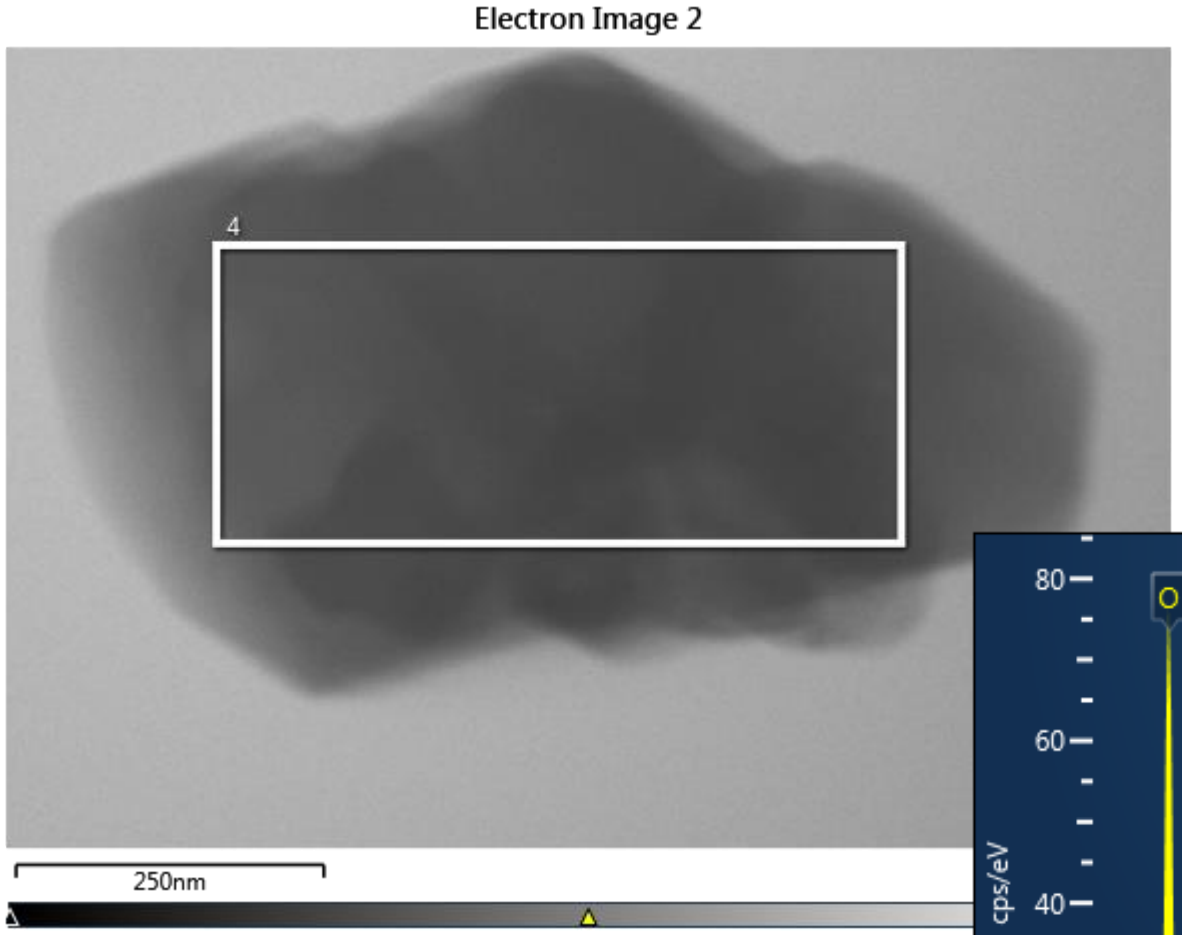


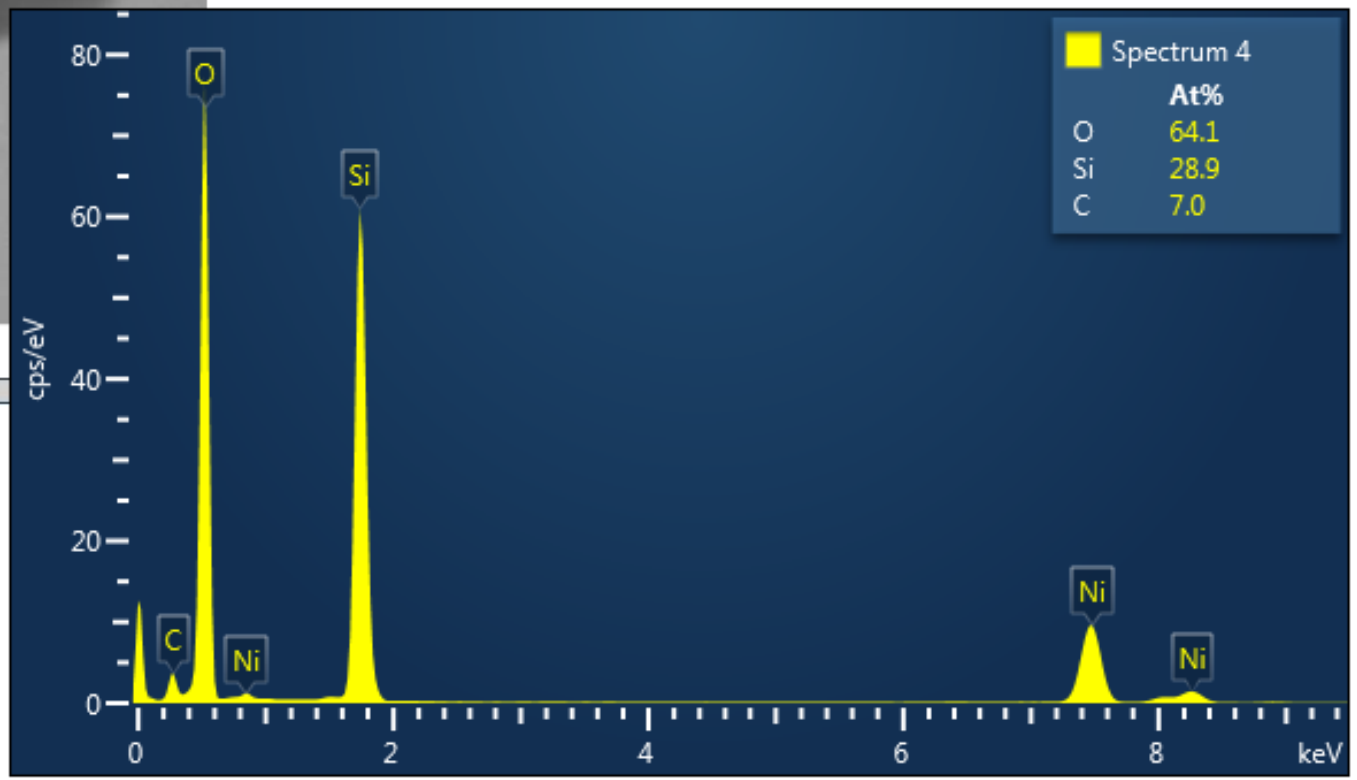
Moderna COVID-19 "Vaccine"



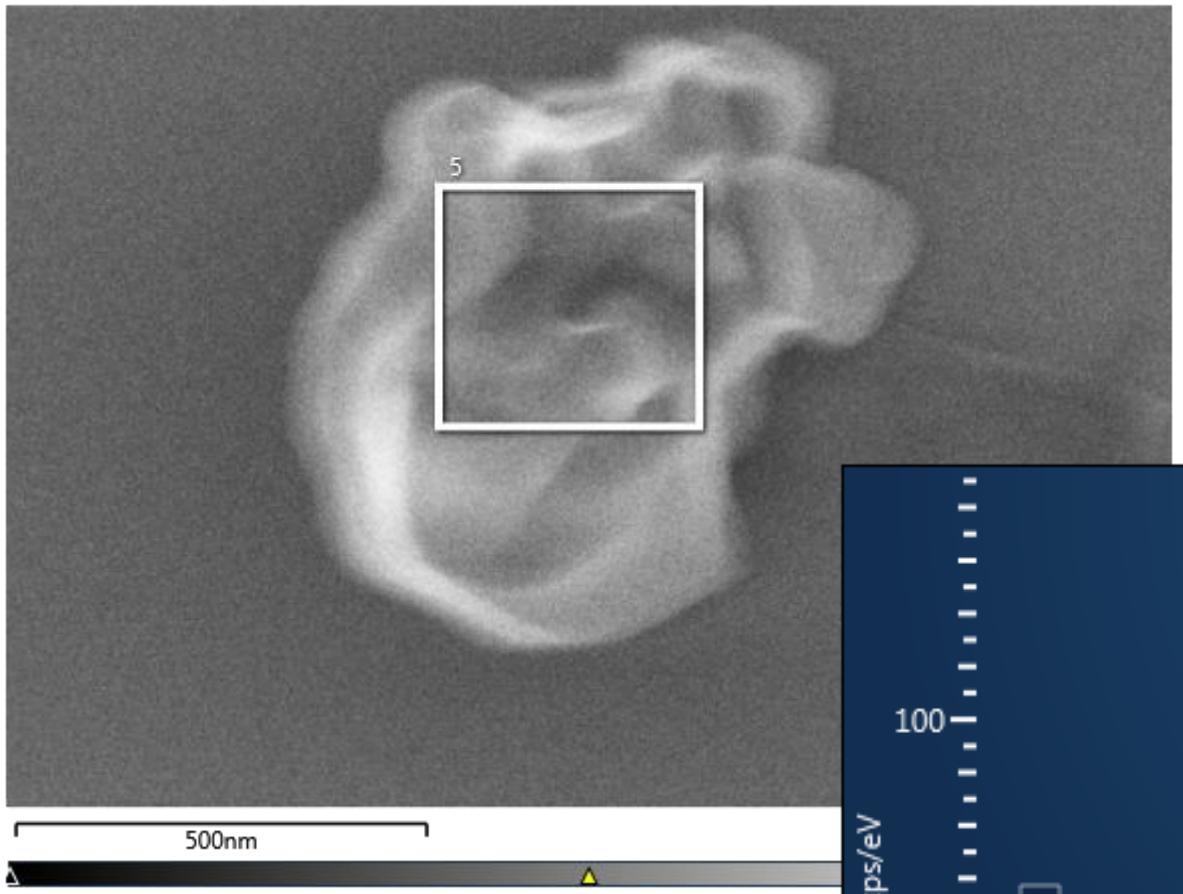


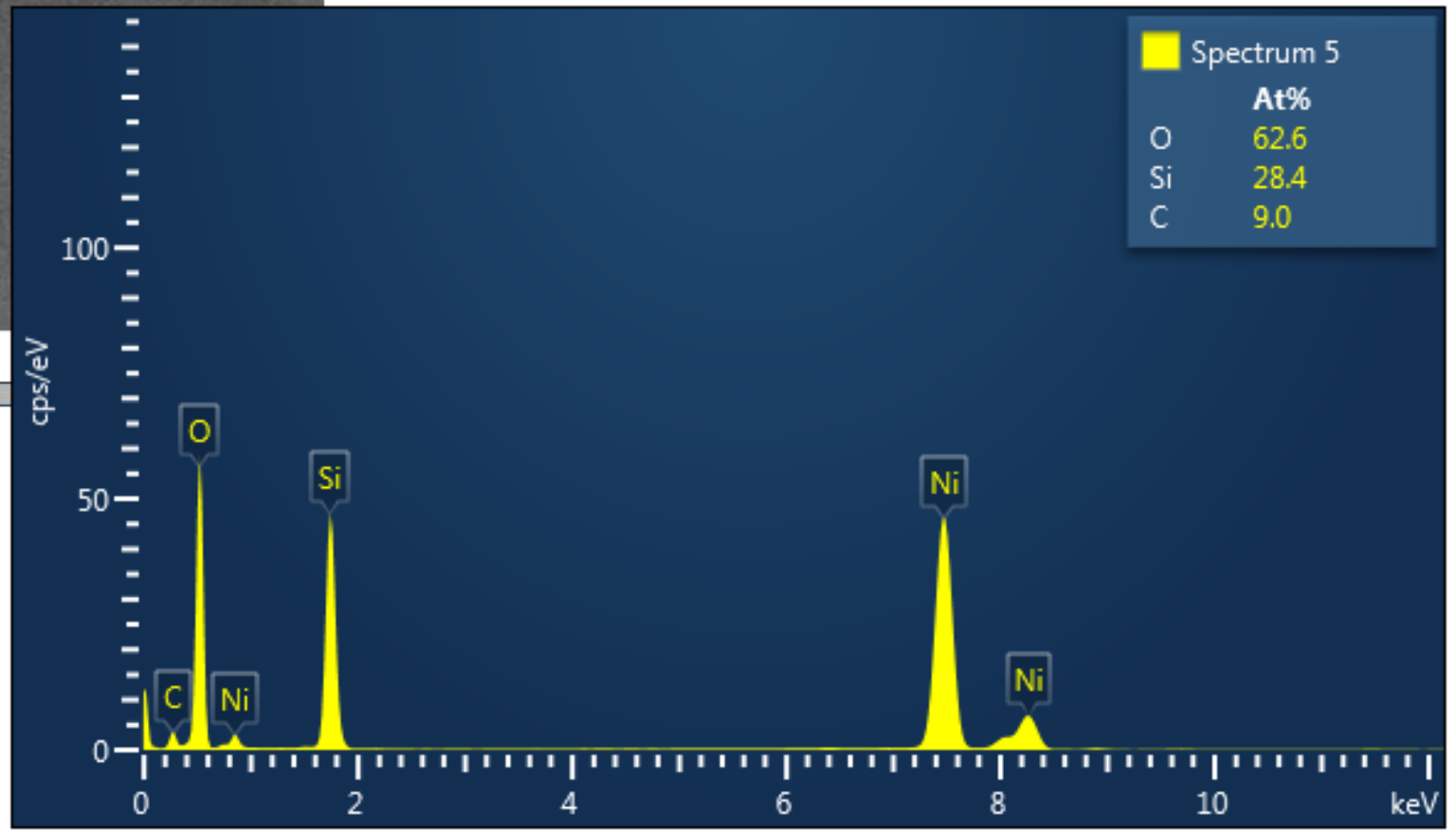
Moderna COVID-19 "Vaccine"



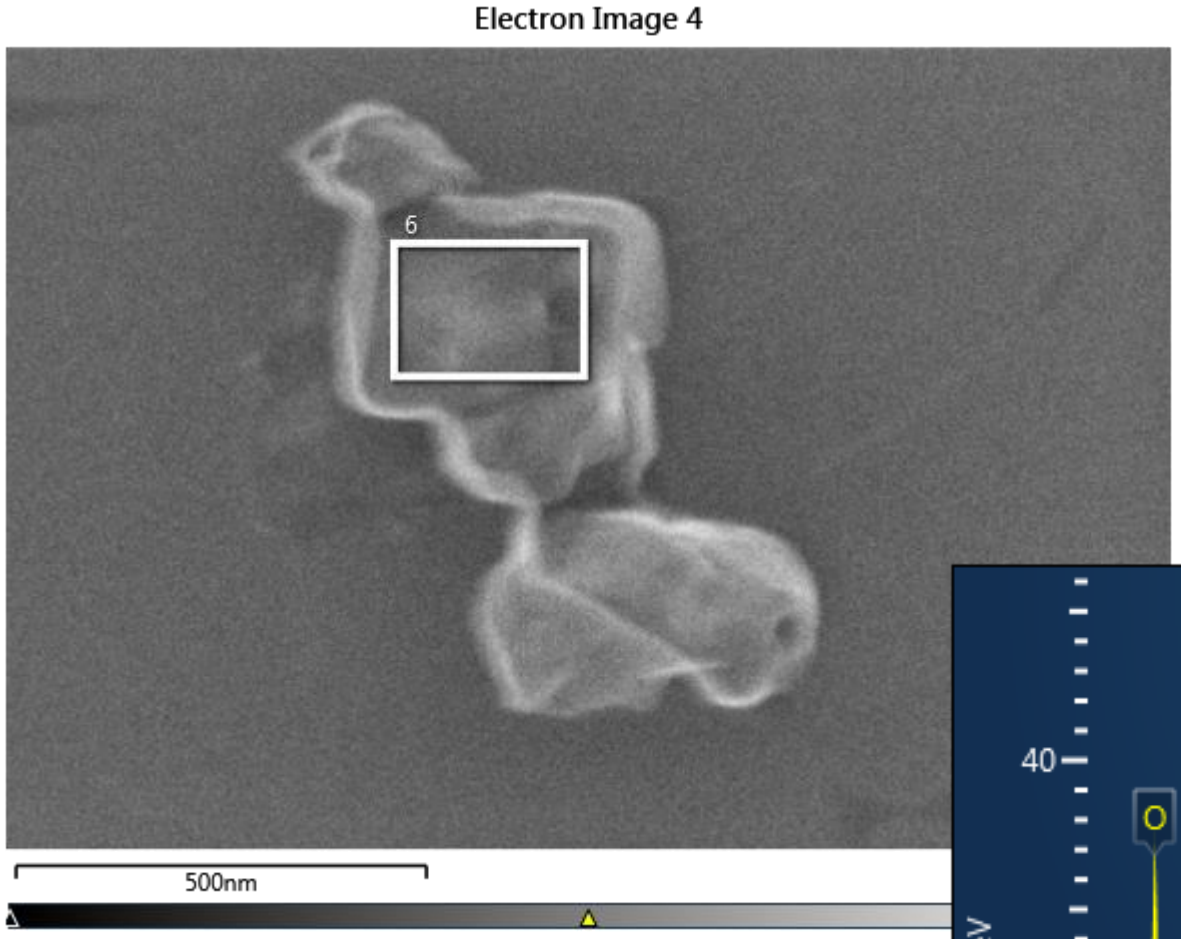


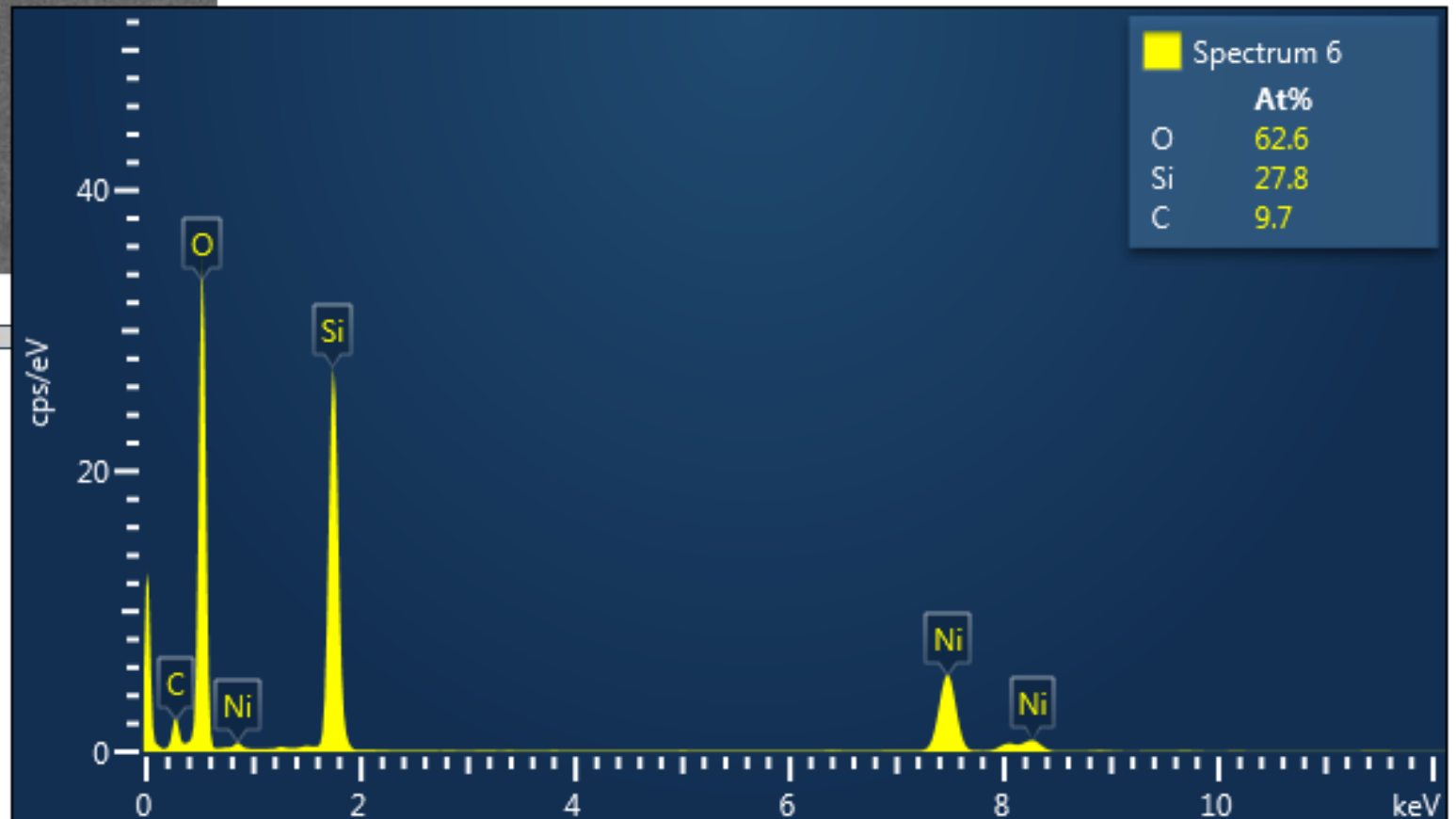
Moderna COVID-19 "Vaccine"



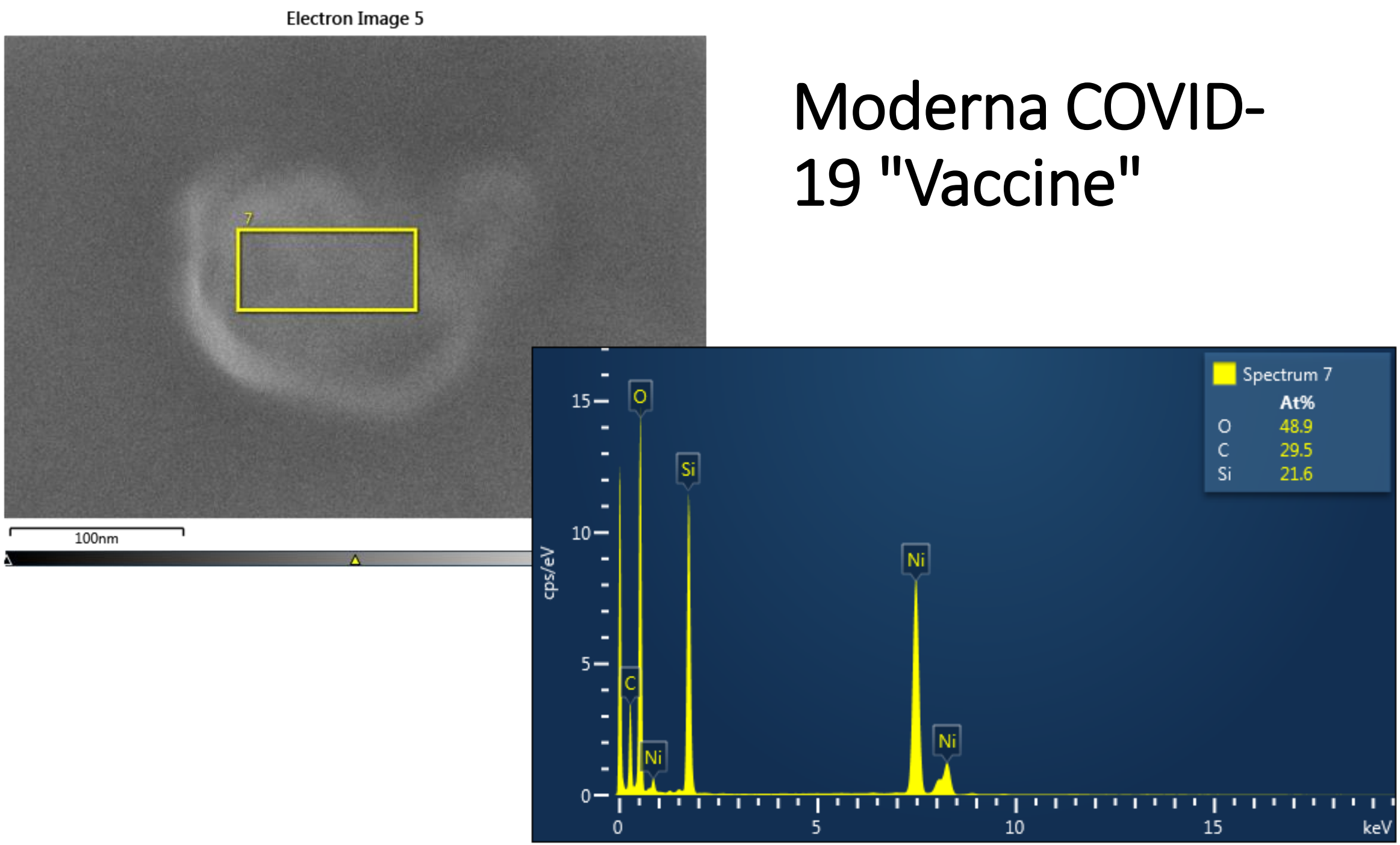


Moderna COVID-19 "Vaccine"

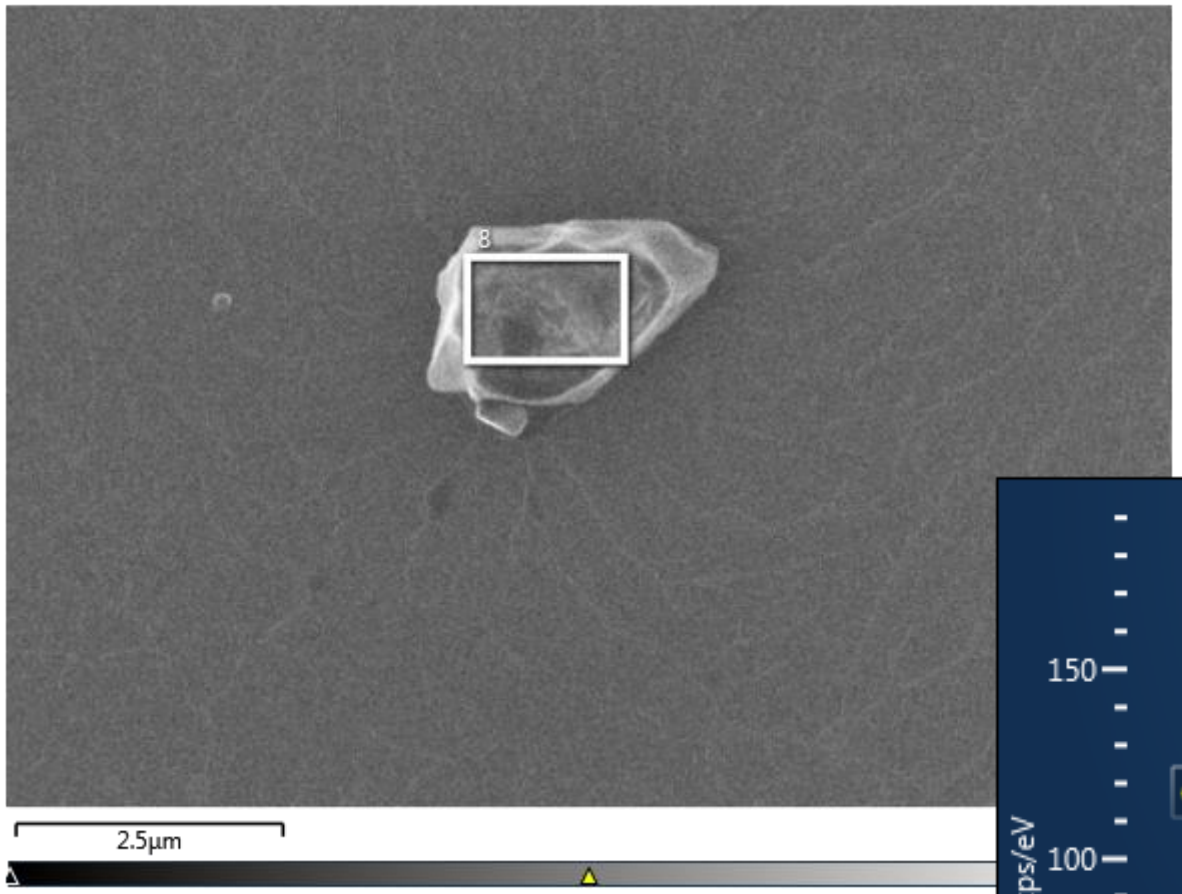


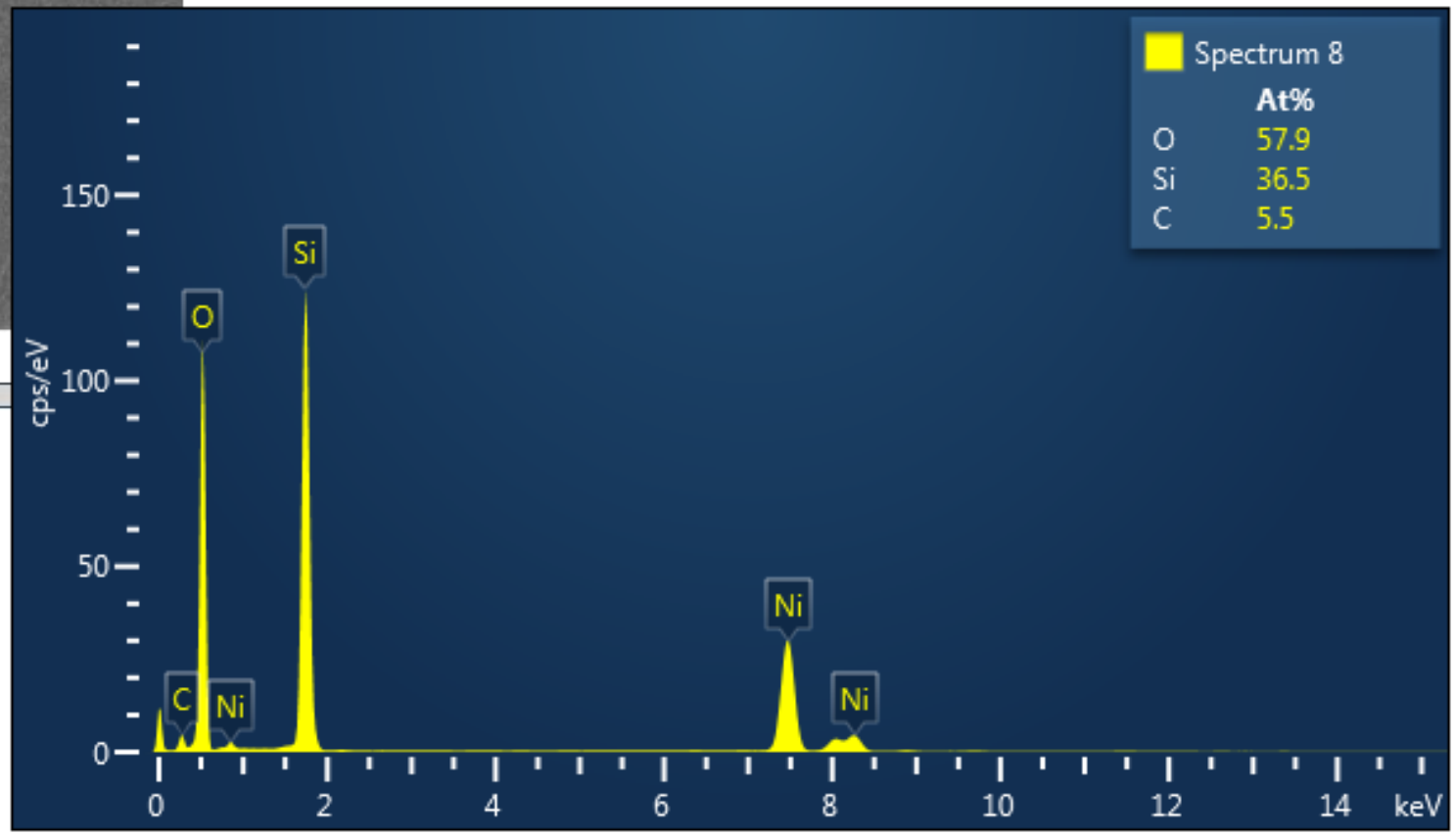


Moderna COVID-19 "Vaccine"

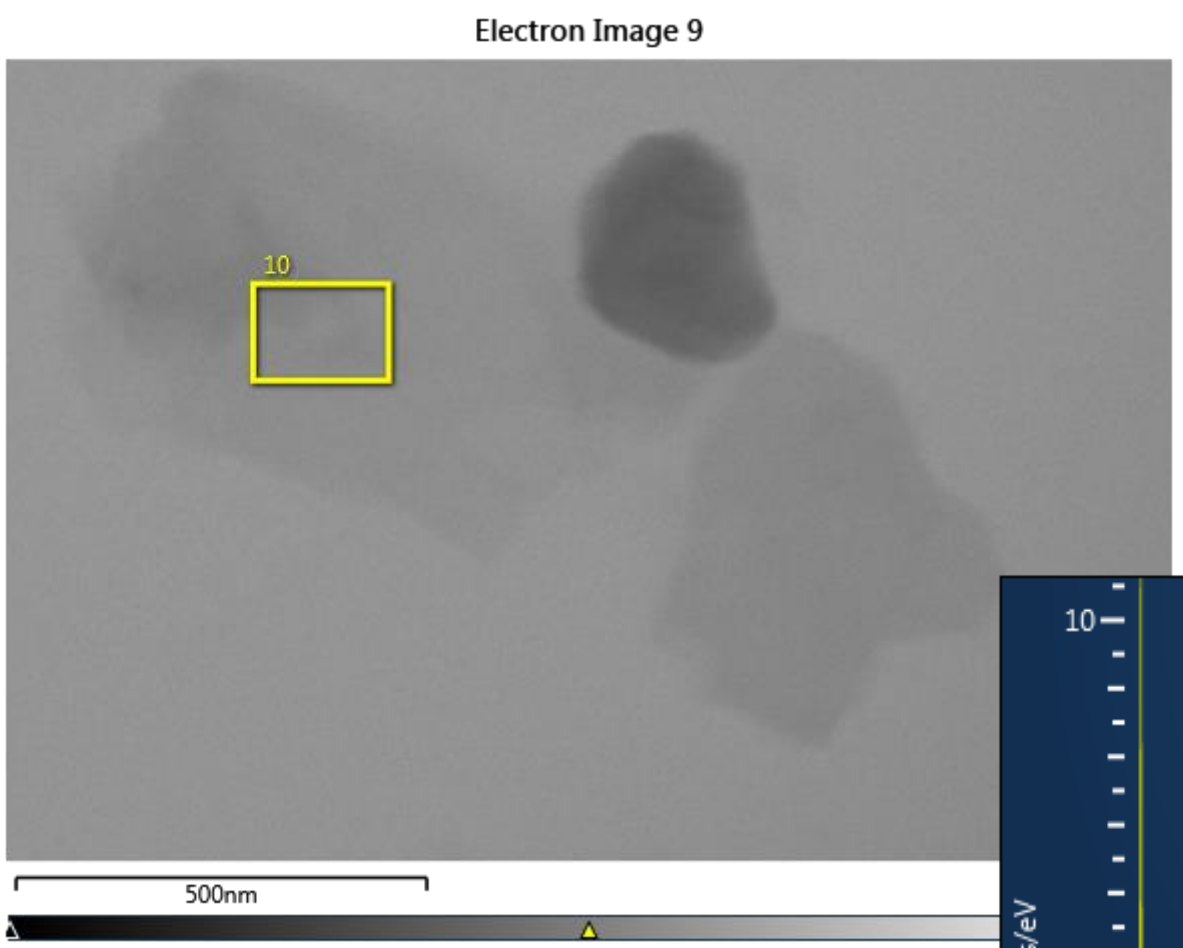


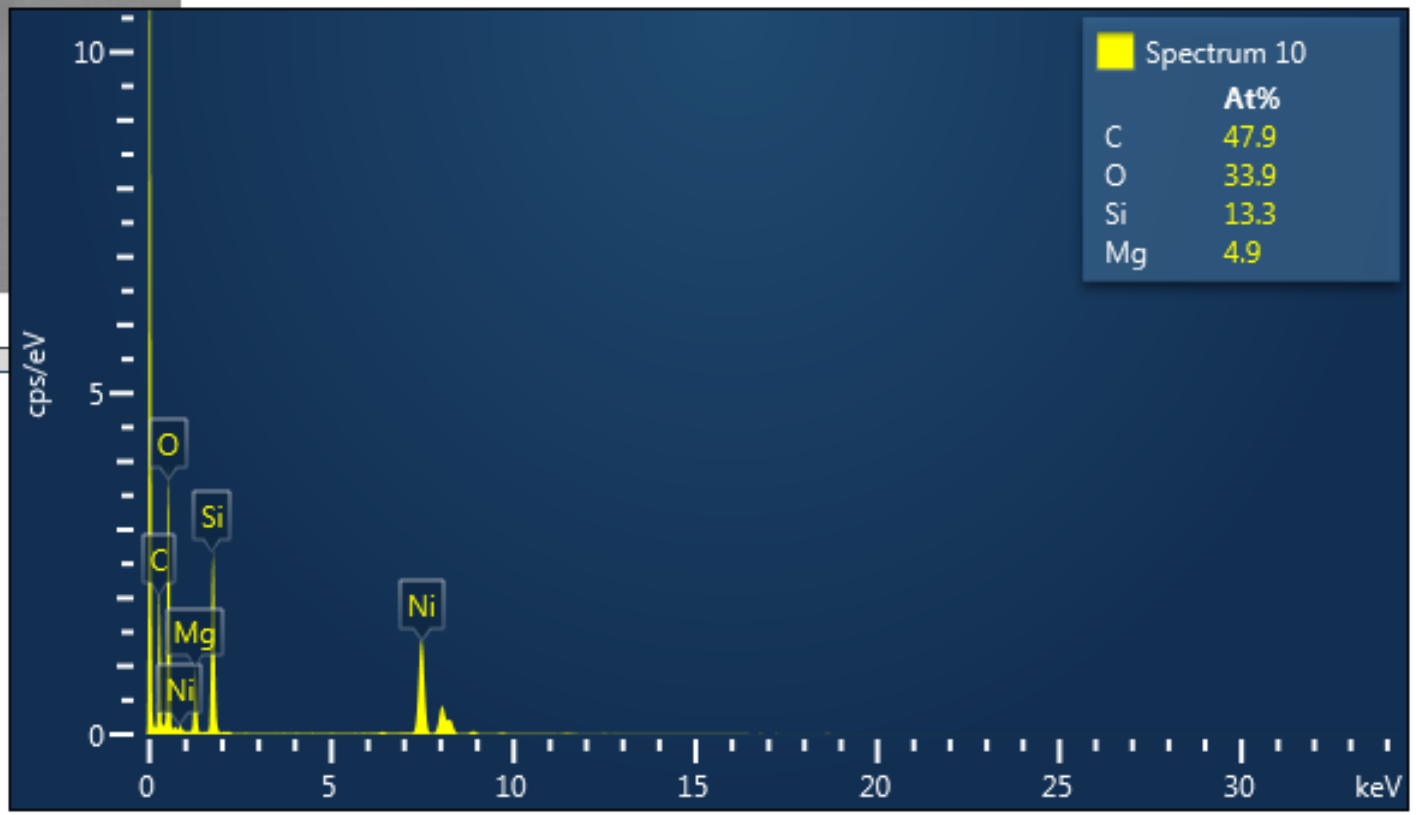
Moderna COVID-19 "Vaccine"



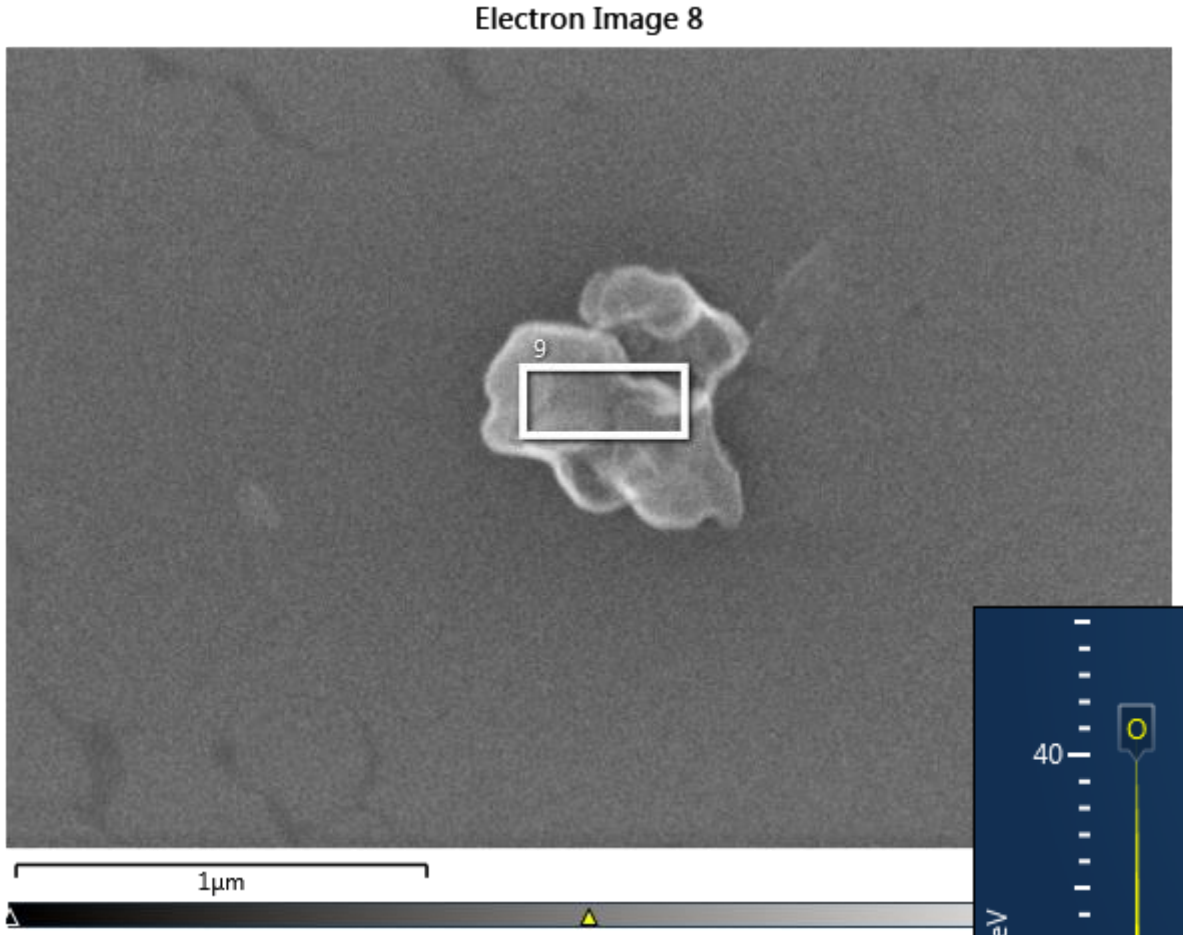


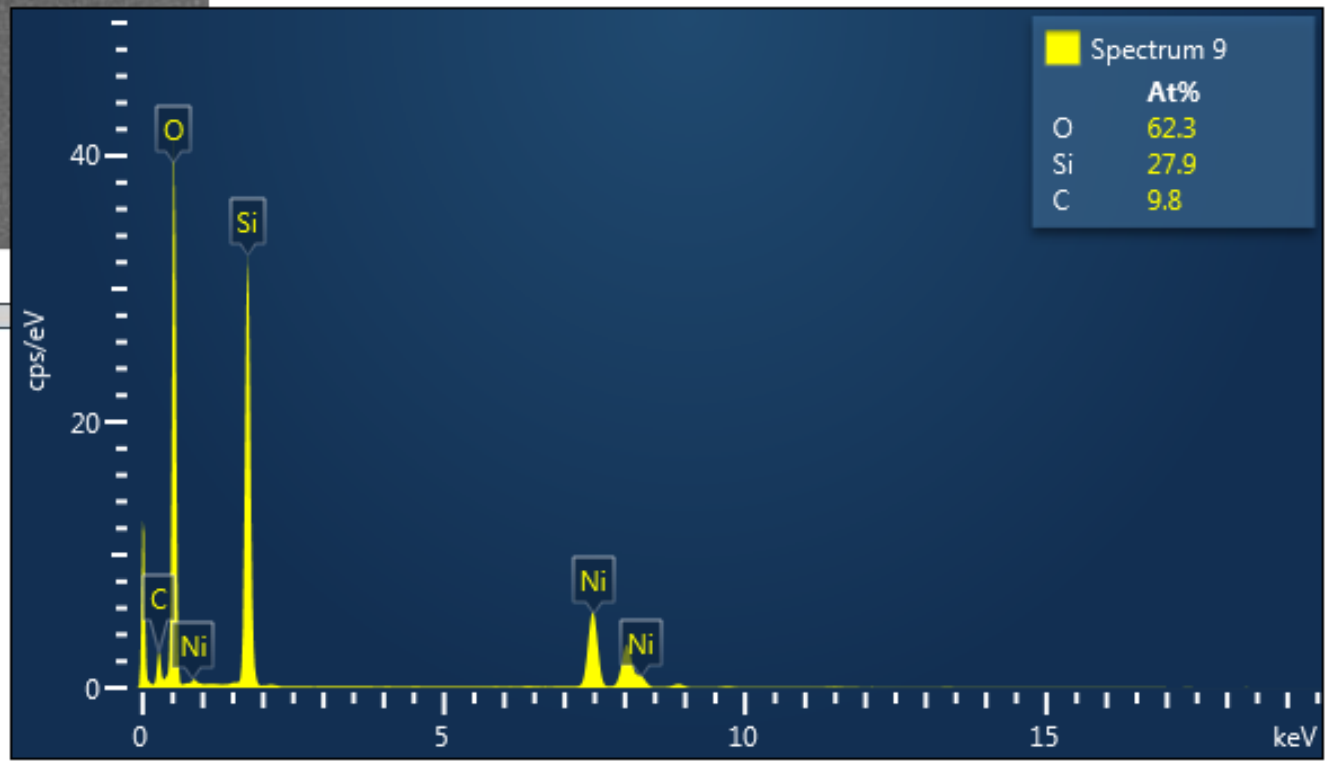
Moderna COVID-19 "Vaccine"



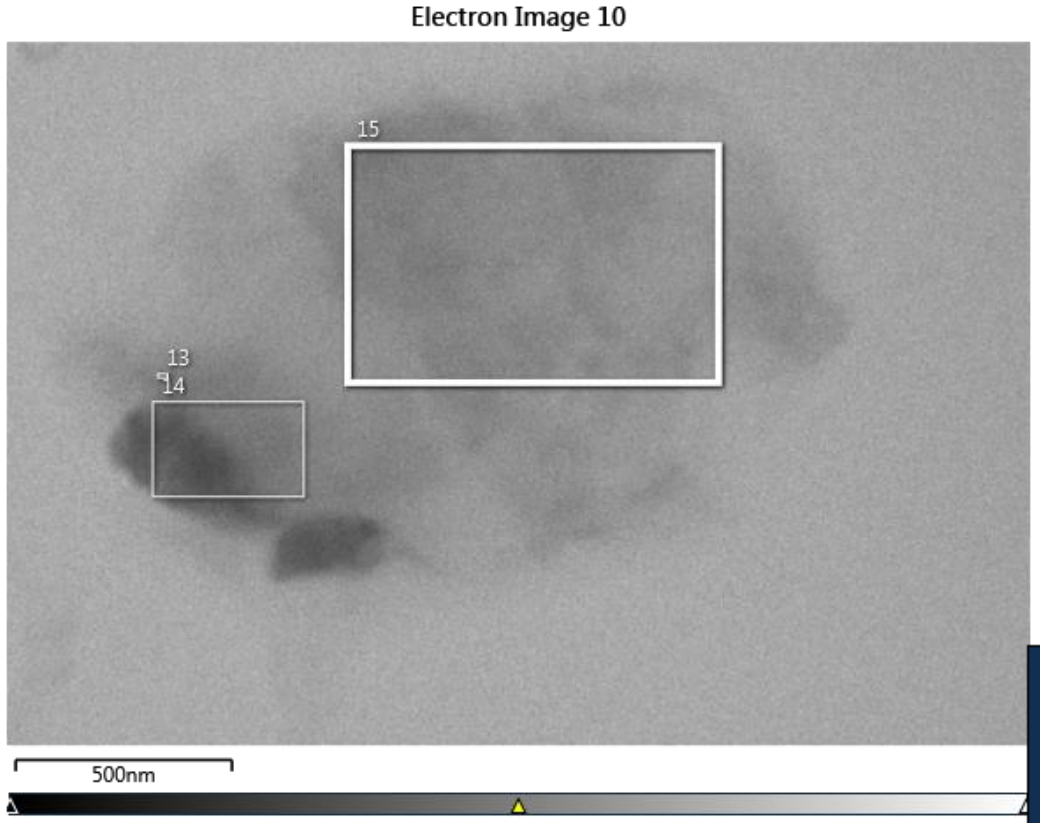


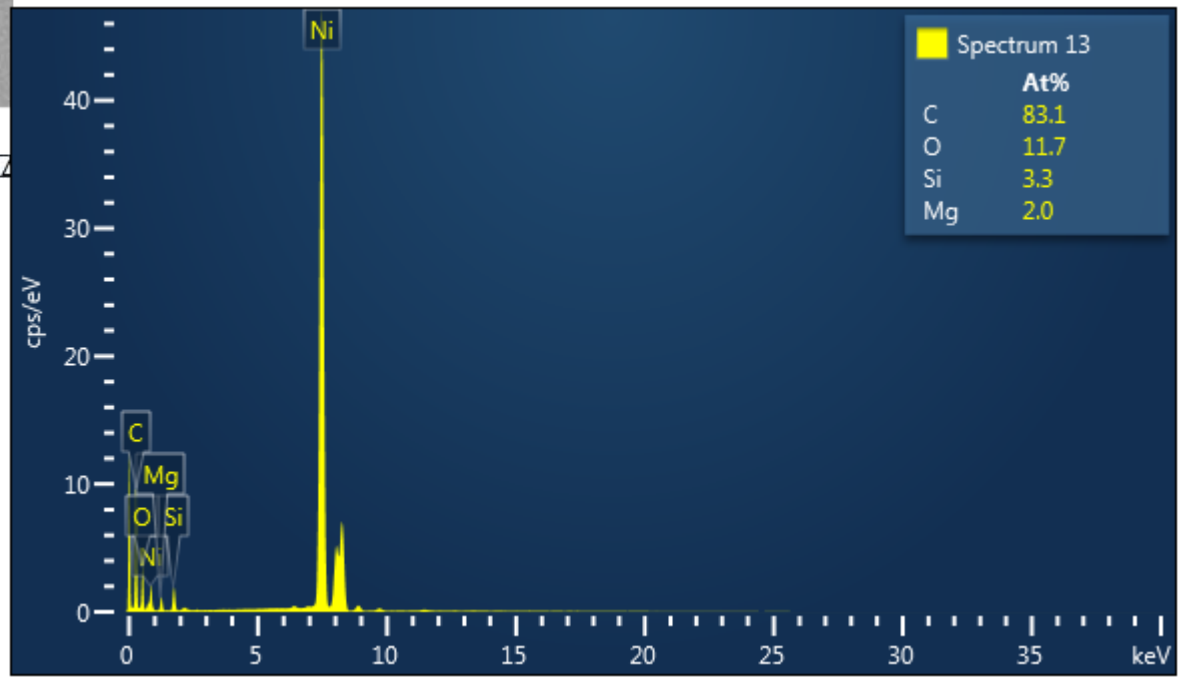
Moderna COVID-19 "Vaccine"



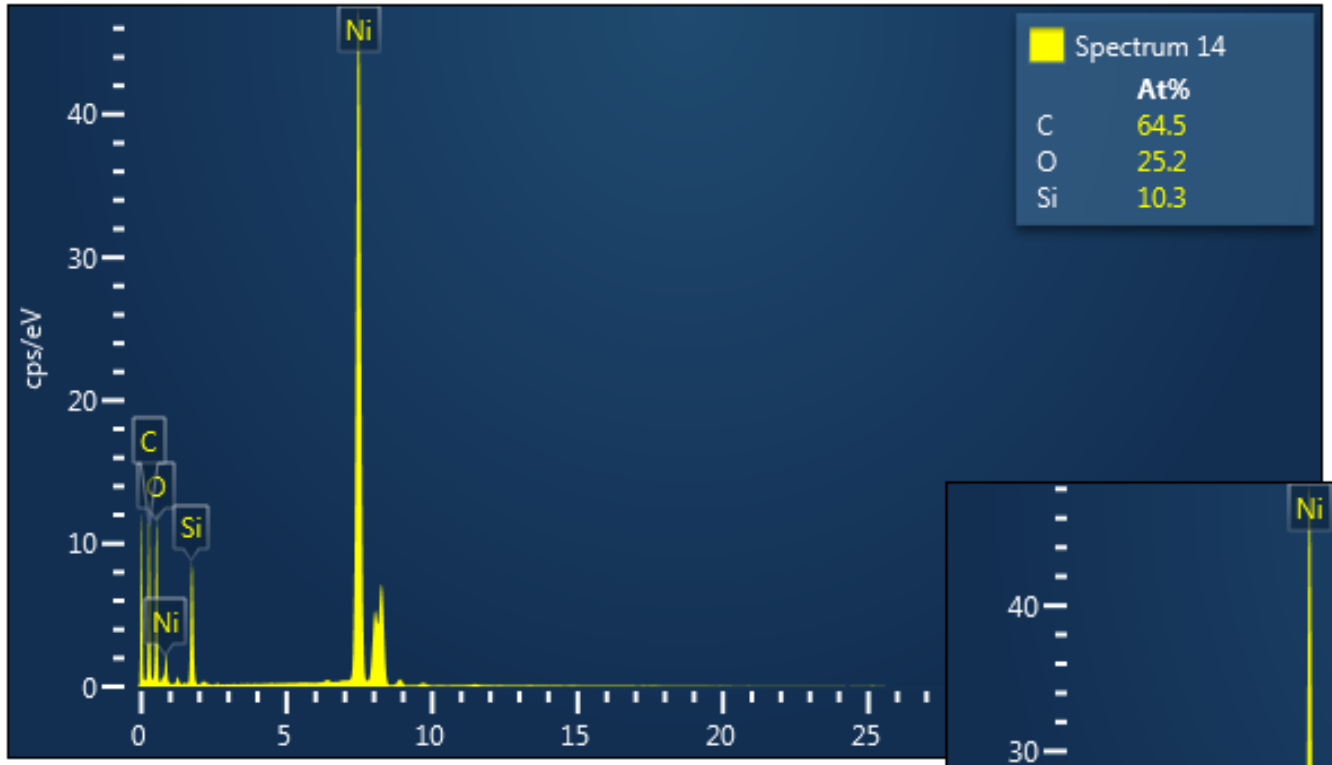


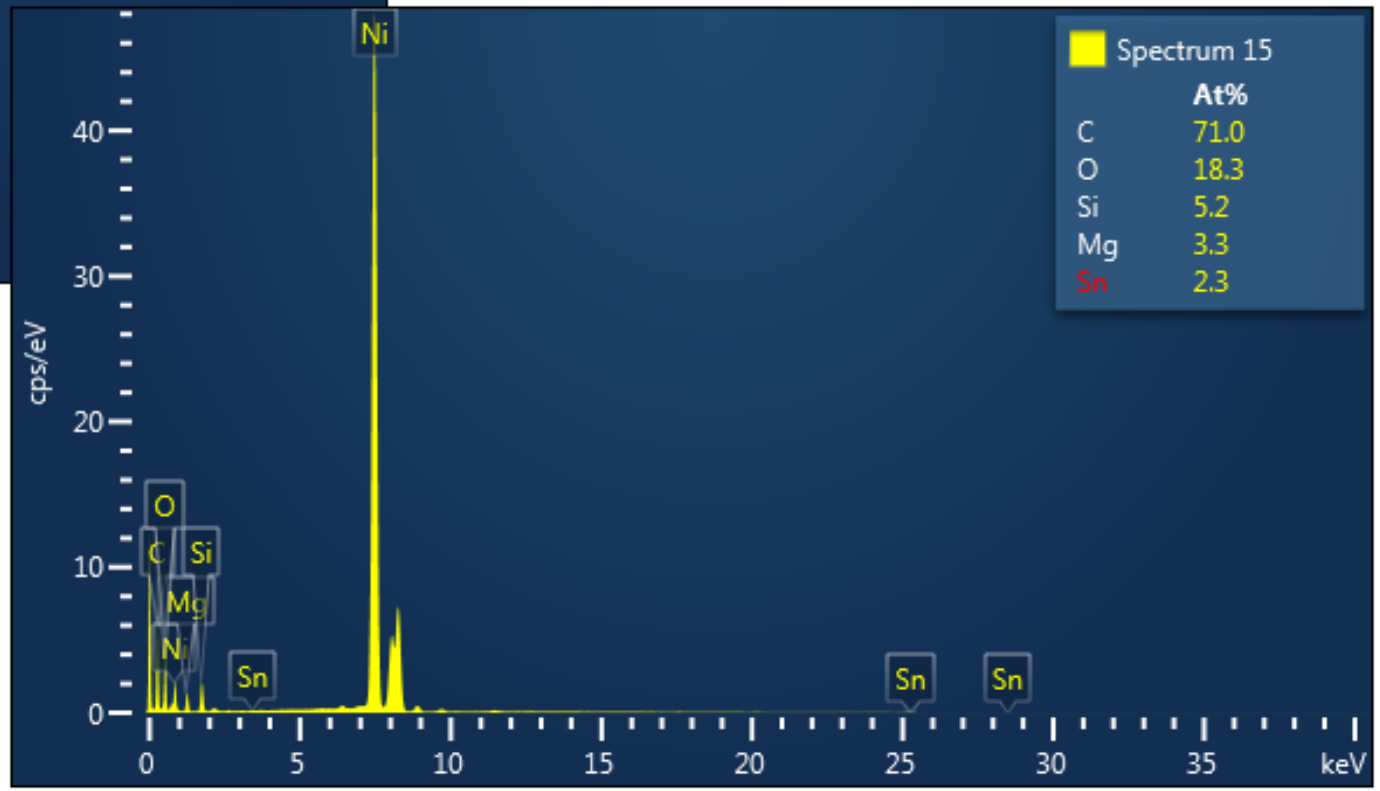
Moderna COVID-19 "Vaccine"



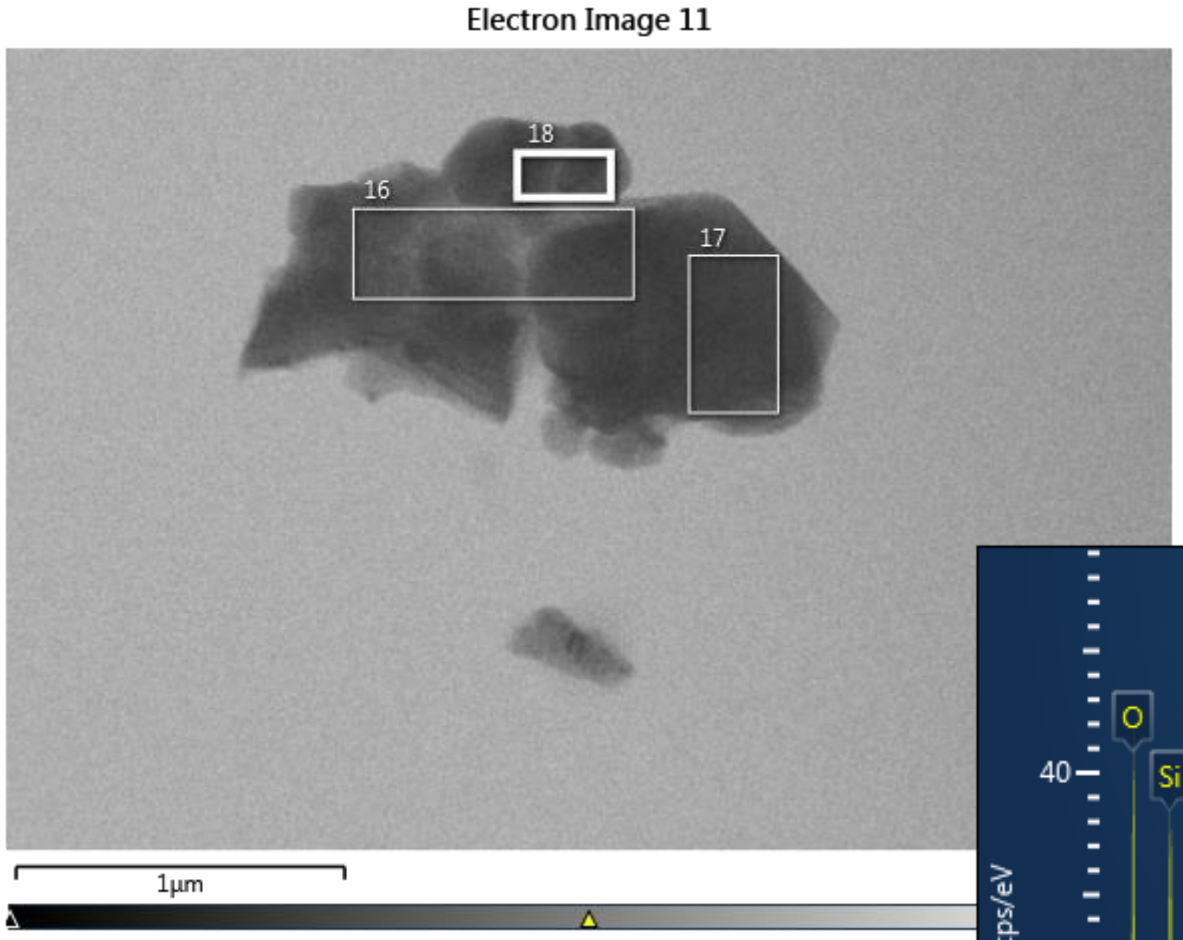


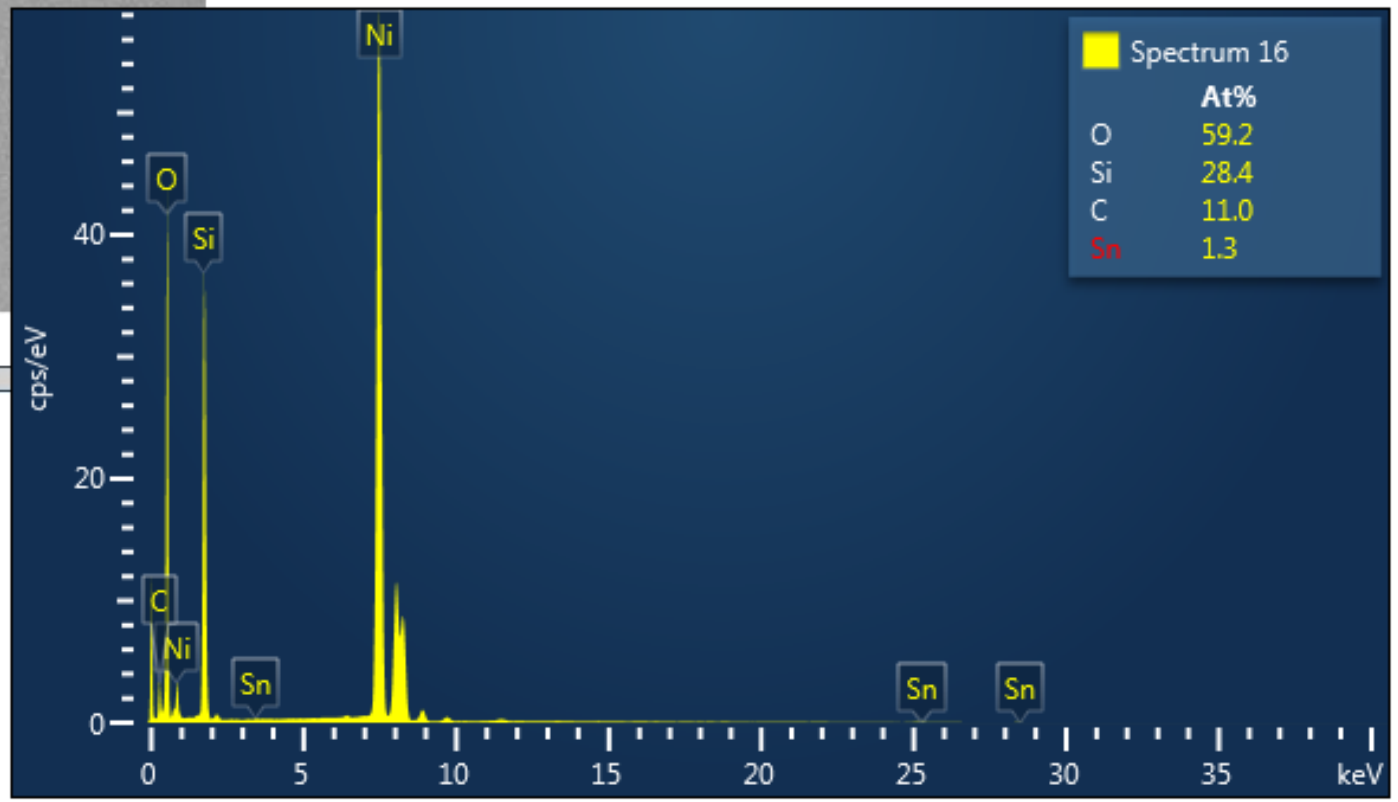
Moderna COVID-19 "Vaccine"



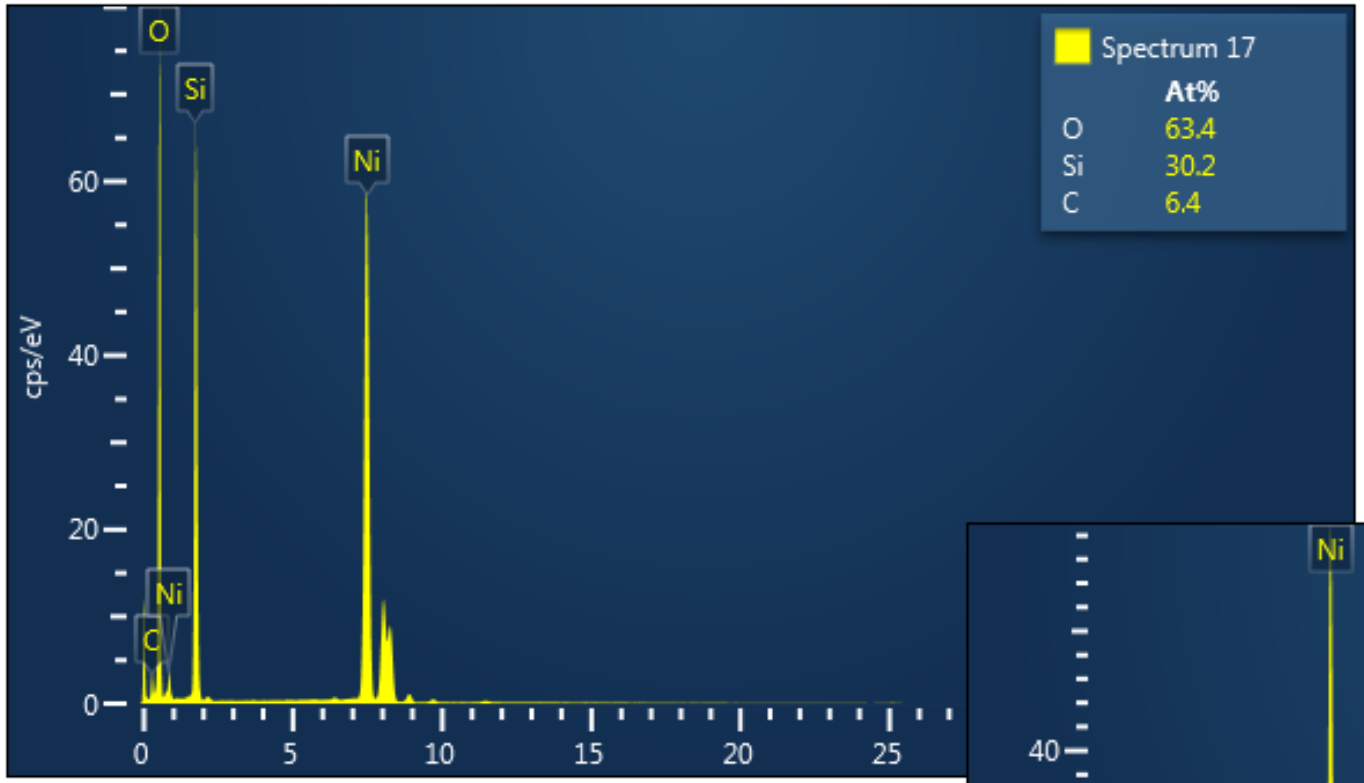


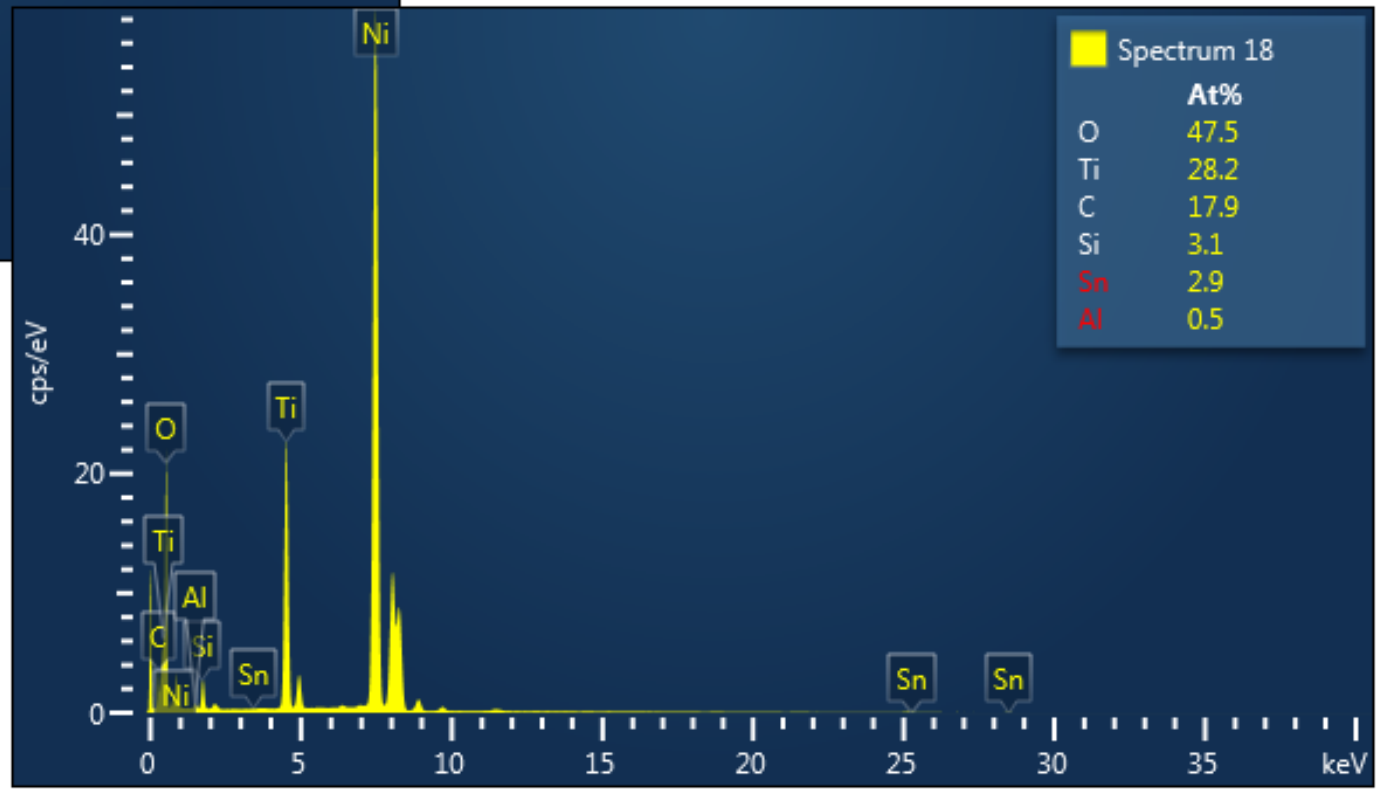
Moderna COVID-19 "Vaccine"





Moderna COVID-19 "Vaccine"





Analysis of covid “vaccines”- Dr. Nagase Daniel-Canada

Canadian Researchers Find Carbon Nanotech and Thulium in Moderna and Pfizer Covid Injections

BY RHODA WILSON ON MAY 27, 2022 • (64 COMMENTS)

After reviewing electron microscope images of elements contained in the Covid Pfizer and Moderna injections, Dr. Daniel Nagase revealed that, strangely, the contents of the Pfizer and Moderna “vaccines” show no signs of biological material, including mRNA or DNA.

Dr. Nagase s a Canadian emergency room doctor who was put on involuntary leave for successfully treating Covid patients with ivermectin in a central-Alberta hospital in 2021. He has since been touring through Alberta and British Columbia (“BC”) speaking at rallies on treatment options for Covid. Nagase

https://expose-news.com/2022/05/27/carbon-nanotech-and-thulium-in-covid-injections/

Analysis of covid "vaccines“ - Dr Pablo Campras - Madrid

DETECTION OF GRAPHENE IN COVID19 VACCINES

BY MICRO-RAMAN SPECTROSCOPY

TECHNICAL REPORT

Almeria, Spain, November 2, 2021

Prof. Dr. Pablo Campra Madrid
ASSOCIATE UNIVERSITY PROFESSOR
PhD in Chemical Sciences
Degree in Biological Sciences

https://www.researchgate.net/publication/355979001_DETECTION_OF_GRAPHENE_IN_COVID19_VACCINES/link/6187be4907be5f31b753dfcc/download

Analysis of covid "vaccines“ - STEVE KIRSCH

- One of my colleagues did mass spectrometry on 4 vaccine vials: two from Moderna and two from Pfizer.
- He found PEG, but no phosphorus which means he found the lipid nanoparticles, but no payload or preservative. A bunch of blanks. **No mRNA.**
- Some people speculate that it’s because there was breakdown of the mRNA because it wasn’t kept at temperature. Nice theory, but that would violate the laws of physics: stable elements don’t break down. If there was mRNA in the vials, we’d find phosphorus, it doesn’t matter if the strands are broken or degraded. Stable elements don’t degrade.
- Do I believe all the vials are blanks? No! If they were all blanks, we wouldn’t have this many vaccine injured.

https://kirschsubstack.com/p/want-to-know-whats-inside-the-vaccine

Analysis of covid "vaccines“
German Working Group for COVID Vaccine Analysis - SUMMARY OF PRELIMINARY FINDINGS - July 6, 2022

- Scanning **E**lectron **M**icroscopy (SEM) , **E**nergy **D**ispersive **X**-ray spectroscopy (EDX)

- The COVID-19 vaccine doses from : AstraZeneca, BioNTech/Pfizer, Moderna, Johnson & Johnson, Lubecavax, Influspit Tera were investigated.

- The following predominantly metallic elements were unexpectedly detected in the doses from AstraZeneca, BioNTech/Pfizer and Moderna: caesium (**Cs**), potassium (**K**), calcium (**Ca**), barium (**Ba**), cobalt (**Co**), iron (**Fe**), chromium (**Cr**), titanium (**Ti**), cerium (**Ce**), gadolinium (**Gd**), aluminium (**Al**), silicon (**Si**) (partly support material/slide), sulphur (**S**)

https://guerrillatranscripts.substack.com/p/german-working-group-for-covid-vaccine

Analysis of covid "vaccines“

Science | Health and Medicine | Coronavirus | Vaccine

Moderna Vaccine Recall Over Stainless Steel Contamination Caused by 'Human Error'

Oct 01, 2021 at 6:41 AM EDT

https://www.newsweek.com/moderna-vaccine-recall-contamination-stainless-steel-human-error-takeda-covid-1634598

Evidence for the presence of nanotechnology in covid "vaccines"

Role of nanotechnology behind the success of mRNA vaccines for COVID-19
https://www.sciencedirect.com/science/article/pii/S1748013221000670?via%3Dihub

Nanotechnology-based mRNA vaccines
https://www.nature.com/articles/s43586-023-00246-7

Advances in nanotechnology since 2004

- 2004 - “Progress in the development of nano-sized hybrid therapeutics and nano-sized drug delivery systems over the last decade has been remarkable. A growing number of products have already secured regulatory authority approval and, in turn, are supported by a healthy clinical development pipeline”.35

https://ec.europa.eu/archives/bepa/european-group-ethics/docs/publications/opinion_21_nano_en.pdf

1. Ruth Duncan, “Microscopic miracles: nanomedicines already bringing clinical benefits to thousands”. Conference on 24 September 2004, Cardiff University.

The European Group on Ethics in Science and New Technologies to the European Commission

Opinion on the ethical aspects of nanomedicine

- Opinion N° 21 -

- 17 January 2007 -

Nanomedicine and nanotechnology in the EU Research Programm

Nanomedicine

- an area of nanotechnology
- high expectations in diagnostics, drug development and delivery, imaging.
- a major research sector covered by the EU Research and Development Programme.
- Under the 6th EU Framework Programme for research (FP6) the Commission has invested more than €1.36 Billion in nanotechnology (550 projects financed)
- under the 7th Framework Programme for research (FP7) some €3.5 billion should be allocated to this research sector.
- €300-400 million could be allocated to nanotechnology in 2007.
- Around €100 million per year - to be allocated to nanomedicine project proposals.

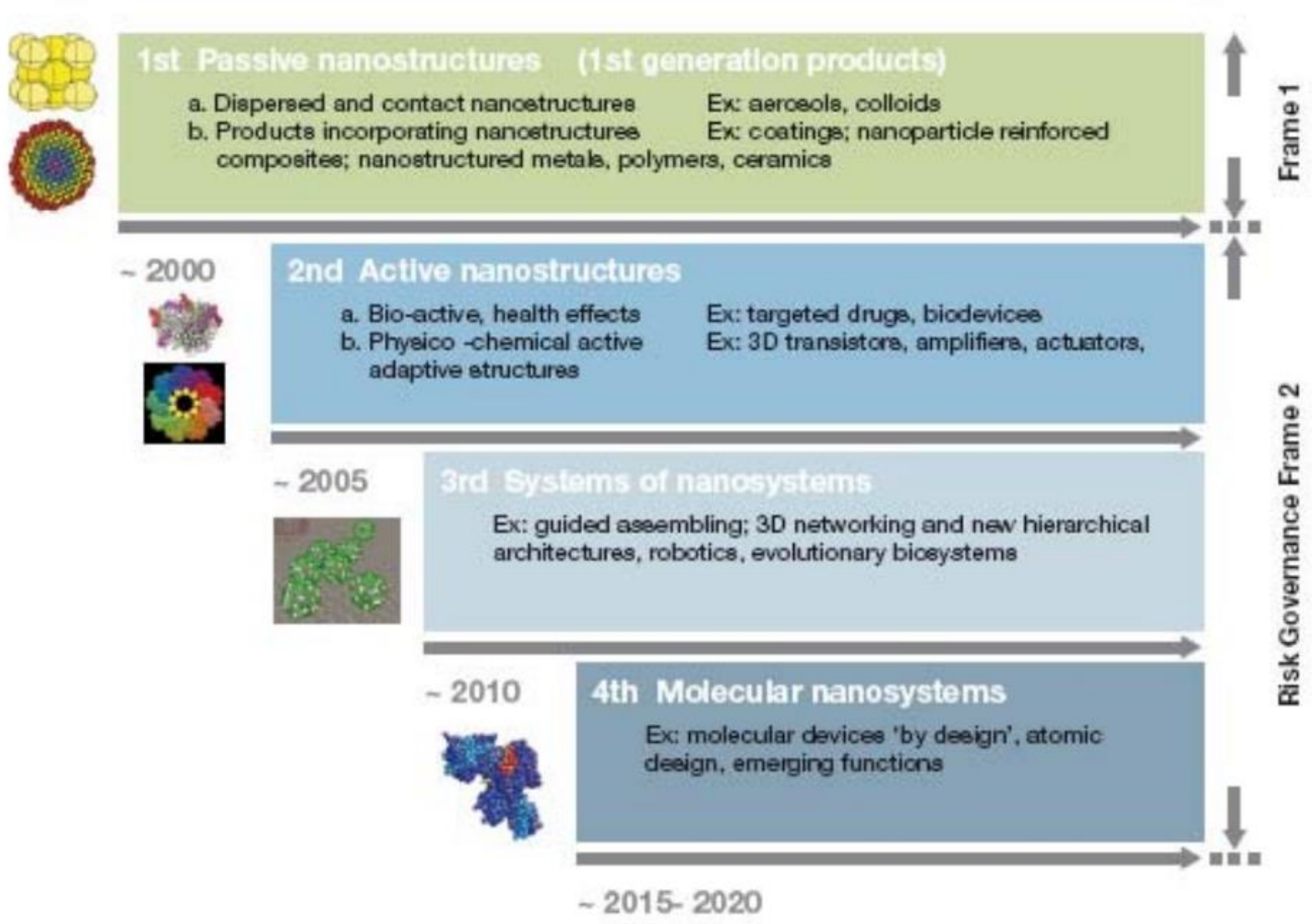
https://ec.europa.eu/archives/bepa/european-group-ethics/docs/publications/opinion_21_nano_en.pdf

Nanotechnology advances in 2006

- According to ***an expert group of the European Medicines Evaluation Agency (EMEA)***, "the majority of current commercial applications of nanotechnology to medicine is geared towards drug delivery to enable new modes of action, as well as better targeting and bioavailability of existing medicinal substances. ***Novel applications of nanotechnology include nanostructure scaffolds for tissue replacement, nanostructures that allow transport across biological barriers, remote control of nanoprobes, integrated implantable sensory nanoelectronic systems and multifunctional chemical structures for drug delivery and targeting of disease.***"36

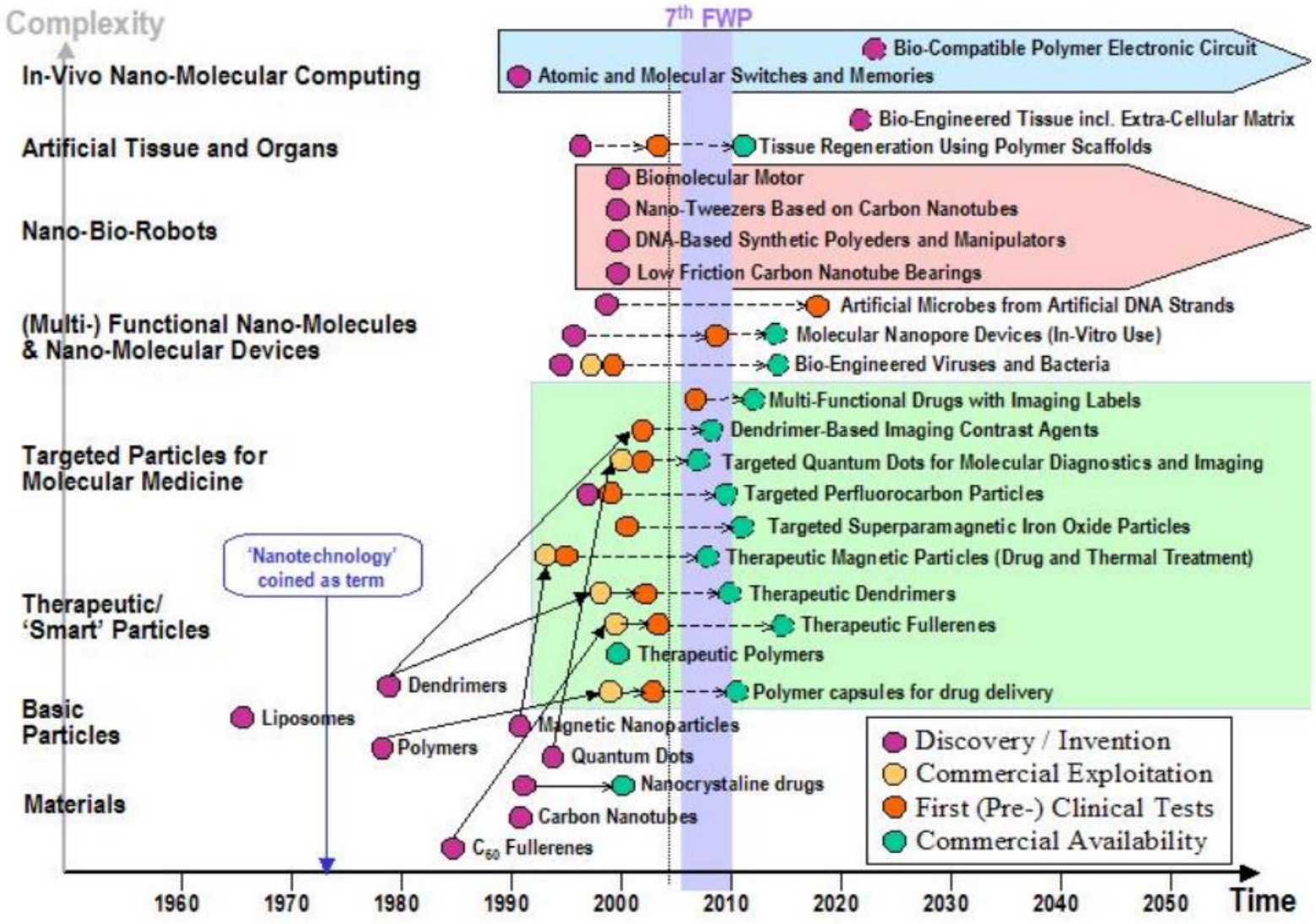
https://ec.europa.eu/archives/bepa/european-group-ethics/docs/publications/opinion_21_nano_en.pdf (pag 14)
EMEA Committee for Medicinal Products for Human Use (CHMP) "Reflection paper on nanotechnology-based medicinal products for human use", June 2006.

The evolution of nanotechnology



https://ec.europa.eu/archives/bepa/european-group-ethics/docs/publications/opinion_21_nano_en.pdf (pag 15)

The evolution of nanotechnology



https://ec.europa.eu/archives/bepa/european-group-ethics/docs/publications/opinion_21_nano_en.pdf (pag 15)

Self-assembly - key factor in nanotechnology

STAM Science and Technology of Advanced Materials
For authors Latest articles Editor's choice STAM Hub

Sci Technol Adv Mater. 2019; 20(1): 51–95.
Published online 2019 Jan 31. doi: 10.1080/14686996.2018.1553108
PMCID: PMC6374972
PMID: 30787960

Self-assembly as a key player for materials nanoarchitectonics

Katsuhiko Ariga, [a,b] Michihiro Nishikawa, [a] Taizo Mori, [a,b] Jun Takeya, [b] Lok Kumar Shrestha, [a] and Jonathan P. Hill [a]

▸ Author information ▸ Article notes ▸ Copyright and License information PMC Disclaimer

ABSTRACT

Go to: ▸

The development of science and technology of advanced materials using nanoscale units can be conducted by a novel concept involving combination of nanotechnology methodology with various research disciplines, especially supramolecular chemistry. The novel concept is called 'nanoarchitectonics' where self-assembly processes are crucial in many cases involving a wide range of component materials. This review of self-assembly processes re-examines recent progress in

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6374972/

Nanotechnology 2.2.7 Toxicological aspects

"It is important to **monitor the possible adverse effects on health arising from the use of free new nanoparticles for diagnostic, therapeutic or cosmetic purposes**. Such adverse effects may be due to **accumulation in tissue or organs**; to the consequences on cellular metabolism of the organism involved, including potential protein conformational change – e.g. **prions**; as well as to the possible promotion of **tumour formation**. There are examples indicating that **known and widely accepted toxicological methods are not sufficient to detect possible damaging effects of nanoparticles**.54"

https://ec.europa.eu/archives/bepa/european-group-ethics/docs/publications/opinion_21_nano_en.pdf (Pag 21)

Wang B, Feng WY, Wang TC, Jia G, Wang M, Shi JW, Zhang F, Zhao YL, Chai ZF. Acute toxicity of nano- and micro-scale zinc powder in healthy adult mice. Toxicol Lett. 2006 Feb 20;161(2):115-23.

Nanoparticles and their risky biological effects

International Journal of Nanomedicine

Dovepress

open access to scientific and medical research

Open Access Full Text Article

REVIEW

Protein–Nanoparticle Interaction: Corona Formation and Conformational Changes in Proteins on Nanoparticles

- The engineering of NPs and the modulation of their in vivo behavior have been extensively studied, and significant achievements have been made in the past decades. **However, in vivo applications of NPs are often limited by several difficulties, including inflammatory responses and cellular toxicity, unexpected distribution and clearance from the body, and insufficient delivery to a specific target.** These unfavorable phenomena may largely be related to the in vivo protein-NP interaction, termed **"protein corona."** The layer of adsorbed proteins on the surface of NPs affects the biological **behavior of NPs and changes their functionality, occasionally resulting in loss-of-function or gain-of-function**. The formation of a protein corona is an intricate process involving complex kinetics and dynamics between the two interacting entities.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7418457/pdf/ijn-15-5783.pdf

Nanoparticles and their risky biological effects

Research | Open access | Published: 15 July 2022

Titanium dioxide and carbon black nanoparticles disrupt neuronal homeostasis via excessive activation of cellular prion protein signaling

Luiz W. Ribeiro, Mathéa Pietri, Hector Ardila-Osorio, Anne Baudry, François Boudet-Devaud, Chloé Bizingre, Zaira E. Arellano-Anaya, Anne-Marie Haeberlé, Nicolas Gadot, Sonja Boland, Stéphanie Devineau, Yannick Bailly, Odile Kellermann, Anna Bencsik & Benoit Schneider

Particle and Fibre Toxicology **19**, Article number: 48 (2022) | Cite this article

https://particleandfibretoxicology.biomedcentral.com/articles/10.1186/s12989-022-00490-x

Nanotechnology

3.1 The legal situation

"Many reports mentioned in section 2.2 address legal questions, but **specific legislation on nanomedicine has not been introduced in European Union Member States**."

3.5 Regulatory concerns

"b. Is the legislation clear and comprehensive, without overlap? **The lack of a clear legal definition of nanomedicine,** and the fact that current regulation is based on other characteristics where nanomedicine was not part of the considerations on which the wording was based**, present a problem**, **as it may be unclear whether nanomedicine is to be placed within or outside the scope of certain legislation**. Some nanomedicinal innovations may fall within several categories of regulation which may apply simultaneously. For example, nanomedical products may combine different mechanisms of action, be they mechanical, chemical, pharmacological or immunological. There may therefore be a risk not only of uncertainty as to which regulation(s) are applicable, but also of there being a plethora of regulatory provisions that are of relevance. Both situations are problematic from a legal point of view."

https://ec.europa.eu/archives/bepa/european-group-ethics/docs/publications/opinion_21_nano_en.pdf (pag 23, 33)
http://webbut2.unitbv.ro/bu2012/series%20vii/BULETIN%20VII/17_Toma-Bianov%202-2012.pdf

Nanotechnology - regulatory aspects

ROYAL SOCIETY OF CHEMISTRY

DOI: 10.1039/D0BM00558D (Review Article) *Biomater. Sci.*, 2020, **8**, 4653-4664

The regulation of nanomaterials and nanomedicines for clinical application: current and future perspectives

Rachel Foulkes [a], **Ernest Man** [b], **Jasmine Thind** [a], **Suet Yeung** [a], **Abigail Joy** [a] **and Clare Hoskins** *[ab]

[a] *School of Pharmacy and Bioengineering, Keele University, Keele, ST5 5BG, UK. E-mail: clare.hoskins@strath.ac.uk; Tel: +44 (0)0141 5482796*

[b] *Department of Pure and Applied Chemistry, University of Strathclyde, Glasgow, G1 1RD, UK*

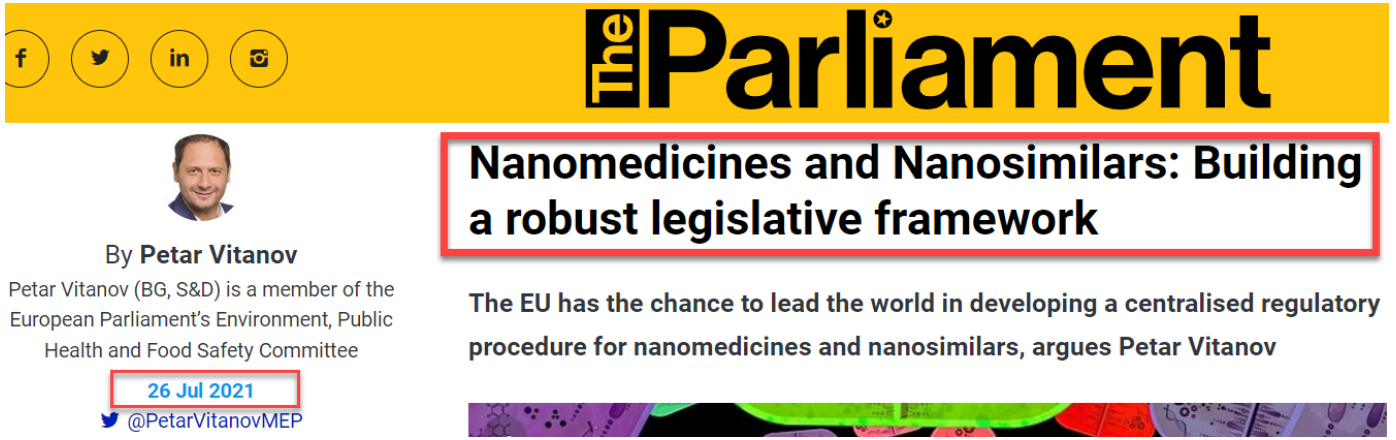
Received 8th April 2020 , Accepted 9th July 2020

The use of nanomaterials in biomedicine has increased over the past 10 years, with many different nanoparticle systems being utilised within the clinical setting. With limited emerging success in clinical trials, polymeric, metallic, and lipid based nanoparticles have all found a place in medicine, with these generally providing enhanced drug efficacy or therapeutic effect compared to the standard drug treatments. Although there is great anticipation surrounding the field of nanomedicine and its influence on the pharmaceutical industry, **there is currently very little regulatory guidance in this area, despite repeated calls from the research community**, something that **is critical to provide legal certainty to manufacturers, policymakers, healthcare providers and the general public.** This is reflected in **the lack of an international definition** of what these materials are, with several bodies, including the National Institute of Health, USA, the European Science Foundation and the European Technology Platform, having differing definitions, and the FDA having **no clear definition at all**. The uncertainty created by the lack of consistency across the board may ultimately impact funding, research and development of such products negatively thus **destroying public acceptance and perception of nano-products.**

https://pubs.rsc.org/en/content/articlehtml/2020/bm/d0bm00558d

Nanotechnology - regulatory aspects

https://www.theparliamentmagazine.eu/news/article/nanomedicines-and-nanosimilars-building-a-robust-legislative-framework



The Parliament

Nanomedicines and Nanosimilars: Building a robust legislative framework

By **Petar Vitanov**

Petar Vitanov (BG, S&D) is a member of the European Parliament's Environment, Public Health and Food Safety Committee

26 Jul 2021

@PetarVitanovMEP

The EU has the chance to lead the world in developing a centralised regulatory procedure for nanomedicines and nanosimilars, argues Petar Vitanov

- "Nanomedicines offer potential solutions for a number of current treatment challenges, including cancer, cardiovascular and neurodegenerative disorders, as well as other diseases**. It is also important to note that the innovative mRNA vaccines contain nanoparticles**"
- Assembling different chemical parts into complex nanoparticles **requires highly standardised and complex manufacturing processes that can guarantee consistent quality, clinical effectiveness and safety**.
- **Changes in quality, size distribution, surface properties, drug loading and release profiles**, **aggregation status and stability can alter how a nanomedicine acts within the body with a significant impact on patient safety and efficacy**.
- This was highlighted in a recent EAASM scientific report which **makes key recommendations to ensure patient safety and enable the EU to fully harness the potential of nanotechnology.**
- The report **calls for the development of a scientific consensus on definitions for nanomedicines in Europe**, improving education and fostering awareness on the complexity and sophistication of nanomedicines among policy makers, prescribers, payers and patients.
- It also **advocates adopting a European Medicines Agency (EMA) centralised procedure for all nanomedicines and nanosimilars which would ensure greater scrutiny of these complex products**.

Nanotechnology - regulatory aspects

ELSEVIER

Journal of Drug Delivery Science and Technology

Volume 80, February 2023, 104118

Review article

Current regulatory landscape of nanomaterials and nanomedicines: A global perspective

Faraat Ali [a], Kumari Neha [b], Sana Parveen [c]

https://doi.org/10.1016/j.jddst.2022.104118

Get rights and con

https://www.sciencedirect.com/science/article/abs/pii/S1773224722010292

- **“The growing presence of nano-based products in almost every sphere of science, especially in pharmaceuticals** has again proved the vital significance of NTc in today's world. However, **it has also led to concerns regarding their associated quality, safety, efficacy, and toxicity issues** among the public and scientific communities. **Here comes the role of the regulators to ensure the maintenance of regulatory concerns of NMs and NMc, hence maintaining the confidence and trust of the public as well.** However, **due to the complicated nature of the NMs, they pose particular challenges for the regulators to form necessary legislations, guidelines, and rules.”**

Nanotechnology - regulatory aspects

https://www.sciencedirect.com/science/article/abs/pii/S1773224722010292

- ”Due to these ***deviations in the properties of the NMs from their bulk counterparts, they need additional special quality and safety regulations*** and certain scientific considerations for their manufacturing protocols and physicochemical testing [12]. However, it has been observed that **most of the presently existing rules and regulations are focused on regular-sized materials or rather can be referred to as bulk materials, which calls for reevaluation and revision of these currently existing guidelines** [9,13]. Moreover, ***most of the available NMc functions by interacting at the biomolecular level with cellular components and genetic materials, which directly and indirectly influences the genomic function.*** This might have both positive beneficial therapeutic effects as well ***as negative effects like genotoxicity and genetic mutations, which could prove lethal and dead for humans*** [14,15]. Focusing on the toxicities, there could be many ways by which they impart toxic effects such as free radicals induced DNA damage leading to lipid peroxidation and protein denaturation. This damages the mitochondrial membrane, leading to cell necrosis and causes cancer due to carcinogenesis and fibrosis-induced gene transcription [16]. There is evidence of **nanoparticles (NPs) accumulation in the vital organs** like the liver when administered intravenously and **further translocation of these particles to the cardiovascular, renal, and central nervous systems** [17]. ”

Nanotechnology - regulatory aspects

Journal of Drug Delivery Science and Technology
Volume 80, February 2023, 104118

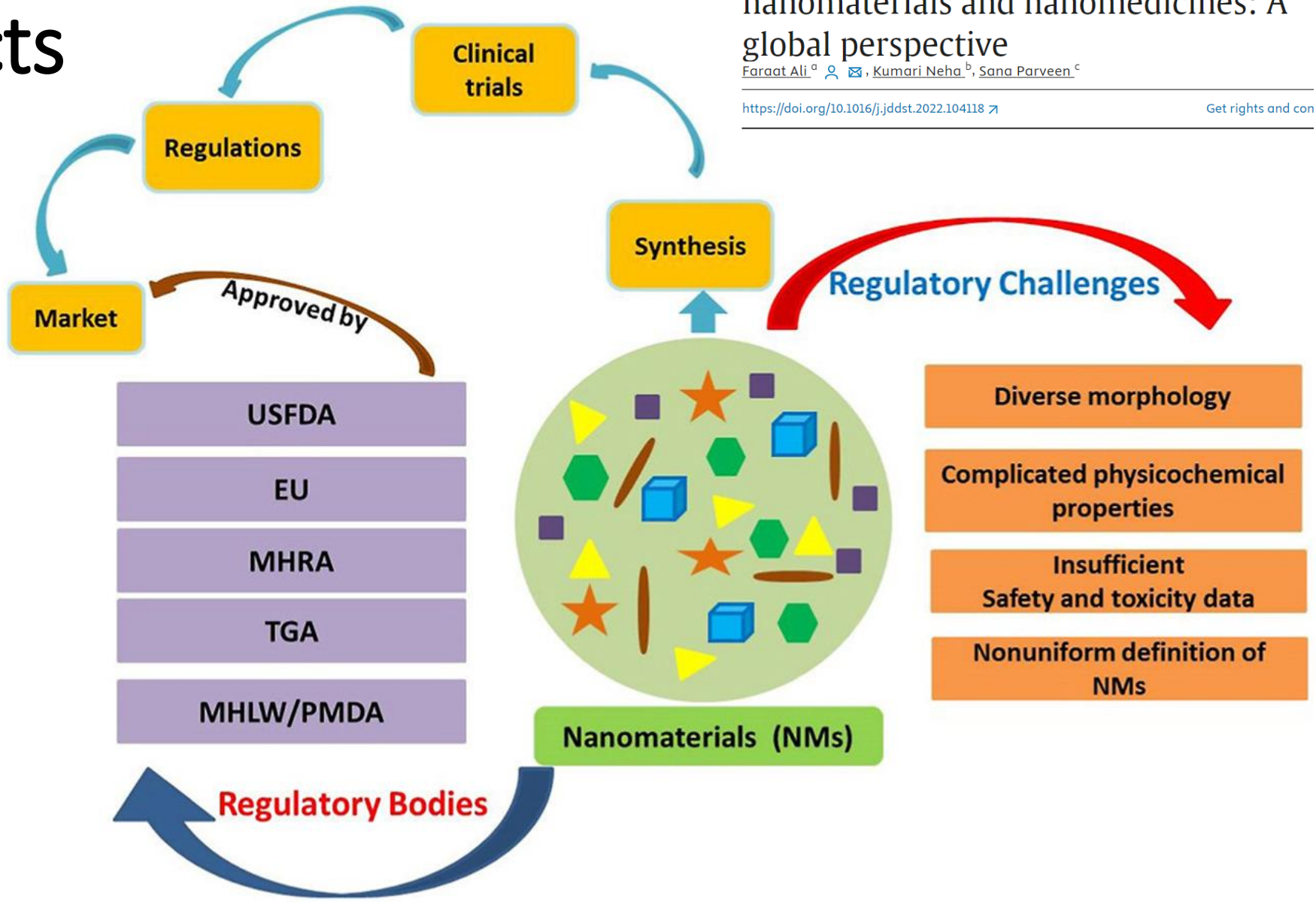
Review article

Current regulatory landscape of nanomaterials and nanomedicines: A global perspective

Faraat Ali [a], Kumari Neha [b], Sana Parveen [c]

https://doi.org/10.1016/j.jddst.2022.104118

https://www.sciencedirect.com/science/article/abs/pii/S1773224722010292



EU Q&A on graphene content of covid "vaccines"

Parliamentary question

- P-000303/2022

European Parliament

Download

Time for the truth on the presence of graphene in the COVID-19 vaccines

24.1.2022

Priority question for written answer P-000303/2022

to the Commission

Rule 138

Sergio Berlato (ECR)

A recent investigation by Dr Ricardo Delgado Martin and the technical report by Dr Pablo Campra 'Detection of graphene in COVID vaccines by micro-Raman spectroscopy' claim that the COVID-19 vaccines contain graphene.

As reported by CORDIS in 2018, a team of researchers has proven that graphene is able to convert electronic signals into signals in the terahertz range, with trillions of cycles per second.

The silicon-based electronic components we use today generate clock speeds in the GHz range, where 1 GHz is equal to 1 000 million cycles per second. The scientists showed that graphene can convert signals with these frequencies into signals with frequencies that are thousands of times higher than those created by silicon.

Graphene is therefore able to absorb radiation, meaning that, if contained in a vaccine, it would be highly toxic and harmful to human health.

In the light of this recent investigation, does the Commission intend to have an independent laboratory perform a careful analysis to check for the presence of graphene in the COVID-19 vaccines?

https://www.europarl.europa.eu/doceo/document/P-9-2022-000303_EN.html

EU Q&A on graphene content of covid "vaccines"

Parliamentary question

- P-000303/2022(ASW)

European Parliament

Download

Answer given by Ms Kyriakides on behalf of the European Commission

8.3.2022

Written question

In the EU a marketing authorisation is granted to a medicinal product only after its quality, safety and efficacy have been evaluated and a positive benefit-risk balance related to its use has been concluded. For EU authorisations of COVID-19 vaccines this assessment is carried out by the European Medicines Agency (EMA).

EMA has analysed reports describing the analysis of several vials of COVID-19 vaccines suggesting the presence of graphene and concluded that the currently available data do not show presence of graphene in the vaccines concerned. The analysis by EMA's working party for biological medicines included an input on the Raman spectroscopy from the European Directorate for Quality of Medicines and the independent national testing laboratories responsible for batch release (OMCLs).

Graphene oxide is not used in the manufacture or formulation of any of the COVID-19 vaccines or other medicines, so it would not be present at manufacturing facilities and there is no obvious way that it could get into the vaccines.

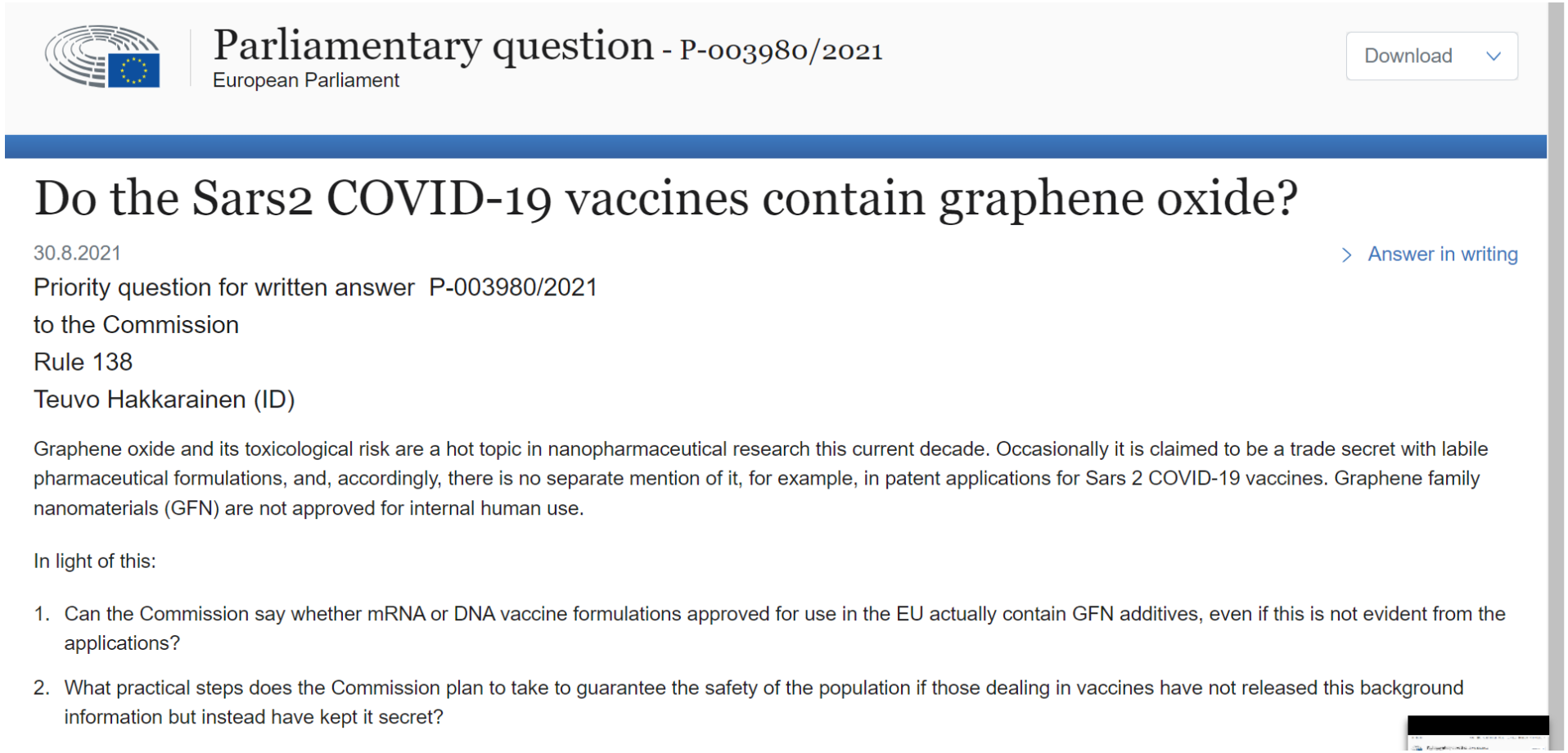
Quality control testing and quality assurance review, by the vaccine manufacturers and OMCLs responsible for batch release, confirm that each batch met all quality standards prior to release. No product complaints have been received for the batches mentioned in the paper. The presence of graphene or graphene derivatives in the vaccines therefore are not plausible.

The Commission and EMA do not consider that any further actions are necessary at this stage.

Last updated: 8 March 2022

https://www.europarl.europa.eu/doceo/document/P-9-2022-000303-ASW_EN.html

EU Q&A on graphene content of covid "vaccines"



Parliamentary question - P-003980/2021
European Parliament

Download

Do the Sars2 COVID-19 vaccines contain graphene oxide?

30.8.2021

Answer in writing

Priority question for written answer P-003980/2021
to the Commission
Rule 138
Teuvo Hakkarainen (ID)

Graphene oxide and its toxicological risk are a hot topic in nanopharmaceutical research this current decade. Occasionally it is claimed to be a trade secret with labile pharmaceutical formulations, and, accordingly, there is no separate mention of it, for example, in patent applications for Sars 2 COVID-19 vaccines. Graphene family nanomaterials (GFN) are not approved for internal human use.

In light of this:

1. Can the Commission say whether mRNA or DNA vaccine formulations approved for use in the EU actually contain GFN additives, even if this is not evident from the applications?
2. What practical steps does the Commission plan to take to guarantee the safety of the population if those dealing in vaccines have not released this background information but instead have kept it secret?

https://www.europarl.europa.eu/doceo/document/P-9-2021-003980_EN.html

EU Q&A on graphene content of covid "vaccines"

Parliamentary question - P-003980/2021(ASW)
European Parliament

Download

Answer given by Ms Kyriakides on behalf of the European Commission

26.10.2021

Written question

The Commission confirms that there is no ferromagnetic or metallic material in all the vaccine formulations approved for use in the EU.

The composition of all authorised COVID-19 vaccines is described in Section 6 of the patient information leaflet and graphene oxide is not listed in the composition of these products:

— Comirnaty[1] — mRNA

— Spikevax[2] — mRNA

— Vaxzevria, COVID-19 Vaccine (ChAdOx1-S [recombinant])[3] — adenovirus

— COVID-19 Vaccine Janssen, INN-Ad26.COV2-S, recombinant[4] — adenovirus

There are currently no approved COVID-19 DNA vaccines in the EU.

In addition to the original quality assessment, each batch of product in the EU is also released by an independent official medicines control laboratory before it may be marketed. This release involves testing of some key parameters and a comprehensive manufacturing protocol review for each batch.

The Commission, together with the European Medicines Agency, is ensuring that COVID-19 vaccines made available in the EU correspond to high standards of safety, quality and efficacy.

[1] https://www.ema.europa.eu/en/documents/product-information/comirnaty-epar-product-information_en.pdf
[2] https://www.ema.europa.eu/en/documents/product-information/spikevax-previously-covid-19-vaccine-moderna-epar-product-information_en.pdf
[3] https://www.ema.europa.eu/en/documents/product-information/vaxzevria-previously-covid-19-vaccine-astrazeneca-epar-product-information_en.pdf
[4] https://www.ema.europa.eu/en/documents/product-information/covid-19-vaccine-janssen-epar-product-information_en.pdf

Last updated: 28 October 2021

https://www.europarl.europa.eu/doceo/document/P-9-2021-003980-ASW_EN.htm I

Studies on the Internet of Bodies

sensors MDPI

Sensors (Basel). 2011; 11(1): 771–784.
Published online 2011 Jan 12. doi: 10.3390/s110100771

PMCID: PMC3274074
PMID: 22346602

Directional MAC Approach for Wireless Body Area Networks

Md. Asdaque Hussain, Md. Nasre Alam, and Kyung Sup Kwak*

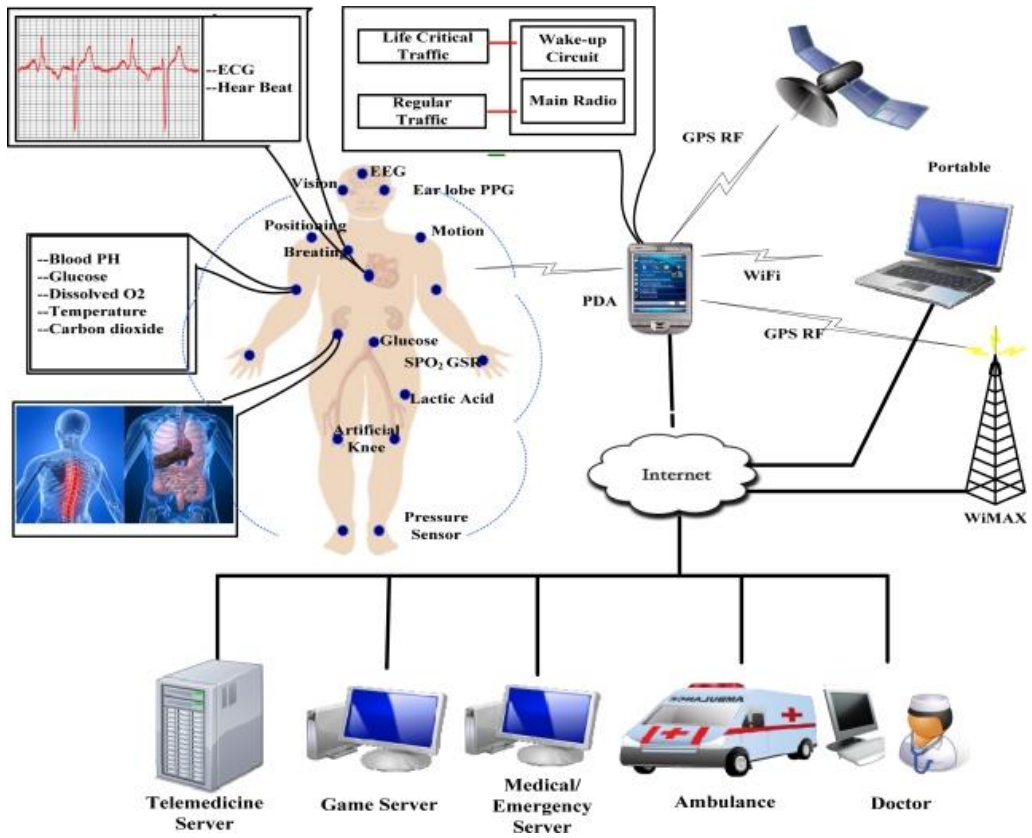
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3274074/

Sensors (Basel). 2011;11(4):3717-37. doi: 10.3390/s110403717. Epub 2011 Mar 25.

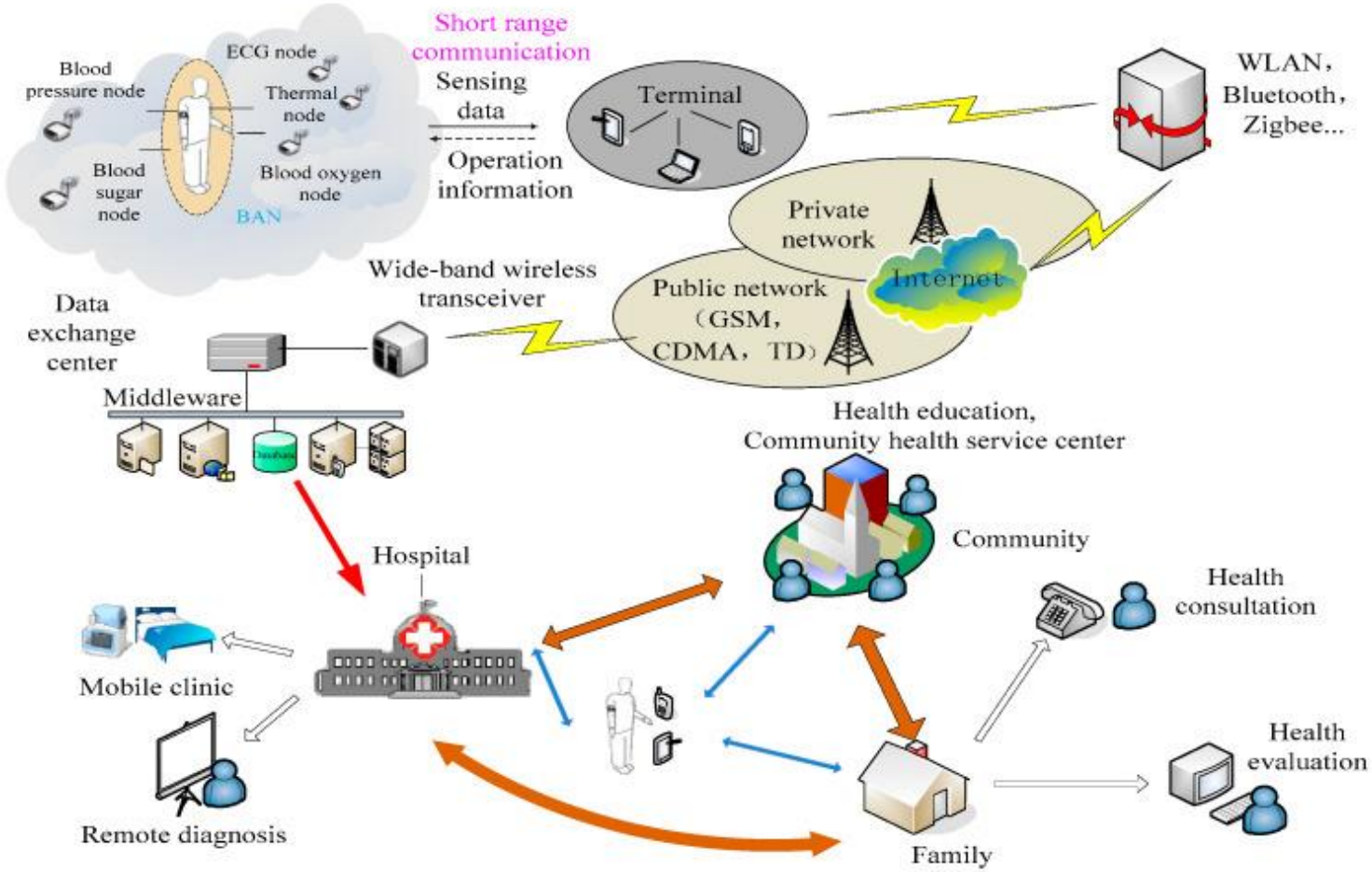
A very low power MAC (VLPM) protocol for Wireless Body Area Networks

Niamat Ullah [1], Pervez Khan, Kyung Sup Kwak

https://pubmed.ncbi.nlm.nih.gov/22163818/



Studies on the Internet of Bodies



sensors MDPI

Sensors (Basel). 2022 May; 22(9): 3539.
Published online 2022 May 6. doi: 10.3390/s22093539

PMCID: PMC9105253
PMID: 35591234

Technological Requirements and Challenges in Wireless Body Area Networks for Health Monitoring: A Comprehensive Survey

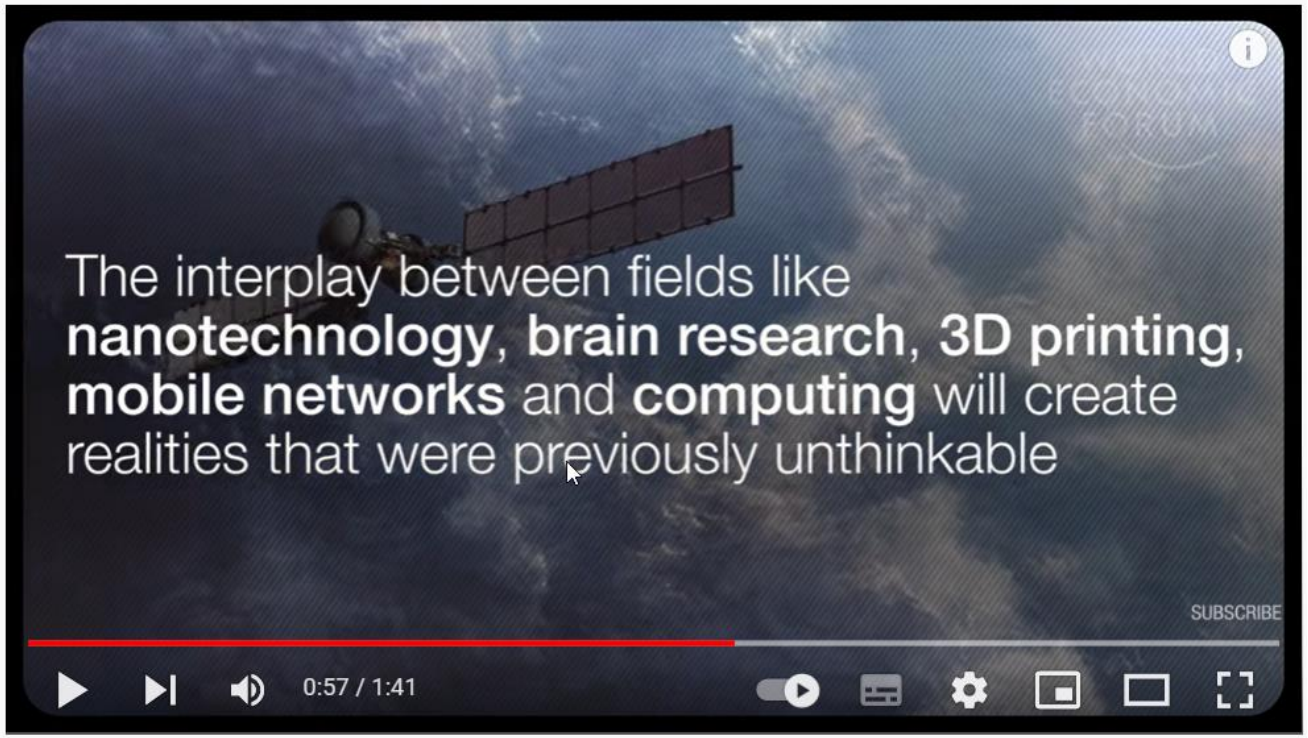
Lisha Zhong,[1,2] Shuling He,[1] Jinzhao Lin,[1] Jia Wu,[1,2] Xi Li,[1] Yu Pang,[1] and Zhangyong Li[3,*]

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9105253/#B24-sensors-22-03539

Everything was planned a long time ago

"These technologies will operate within our own biology and change how we interface with the world. .. Smart Dust, arrays of full computers with antennas, each much smaller than a grain of sand, can now organize themselves inside the body."

Klaus Schwab, Altering the Human Being



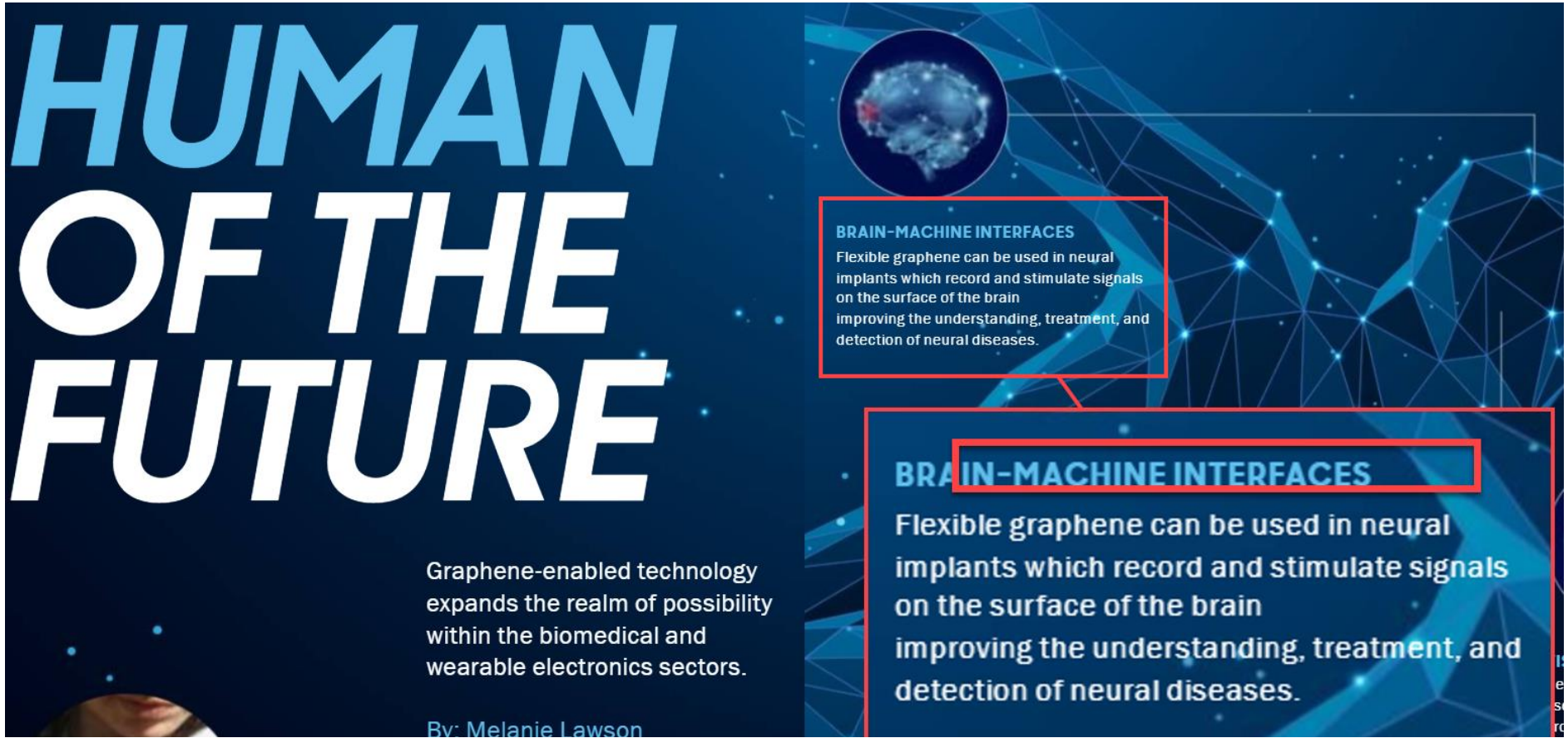
The Fourth Industrial Revolution

407.514 vizionări • 17 dec. 2015 2,2 K NU APRECIEZ TRIMITE SALVEAZĂ ...

World Economic Forum

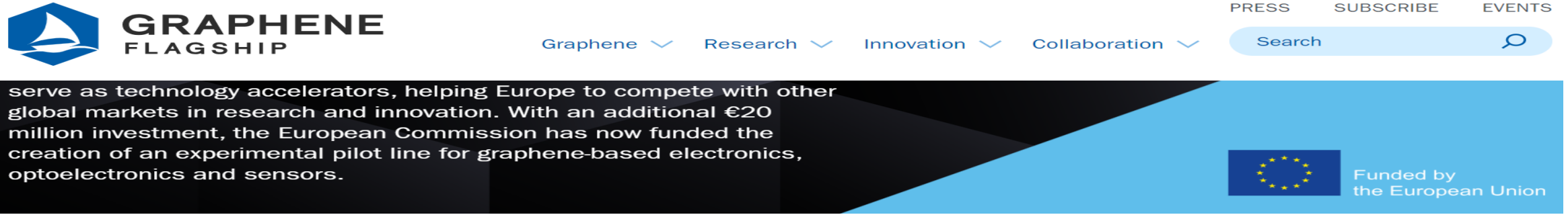
https://www.youtube.com/watch?v=SCGV1tNBoeU&t=60s

Graphene Flagship Project



https://graphene-flagship.eu/

https://graphene.azurewebsites.net/Graphene-Magazine-2020-2/#page=14



1. WO2020060606 - CRYPTOCURRENCY SYSTEM USING BODY ACTIVITY DATA

Publication Number
WO/2020/060606

Publication Date
26.03.2020

International Application No.
PCT/US2019/038084

International Filing Date
20.06.2019

IPC

G06Q 20/06 2012.1 | G06Q 20/32 2012.1 | H04L 9/32 2006.1 | G06Q 30/02 2012.1 | G06N 3/08 2006.1

CPC

G06F 3/011 | G06N 3/045 | G06N 3/047 | G06N 3/08 | G06Q 20/065 | G06Q 20/18

Title

(EN) CRYPTOCURRENCY SYSTEM USING BODY ACTIVITY DATA
(FR) SYSTÈME DE CRYPTOMONNAIE UTILISANT DES DONNÉES D'ACTIVITÉ CORPORELLE

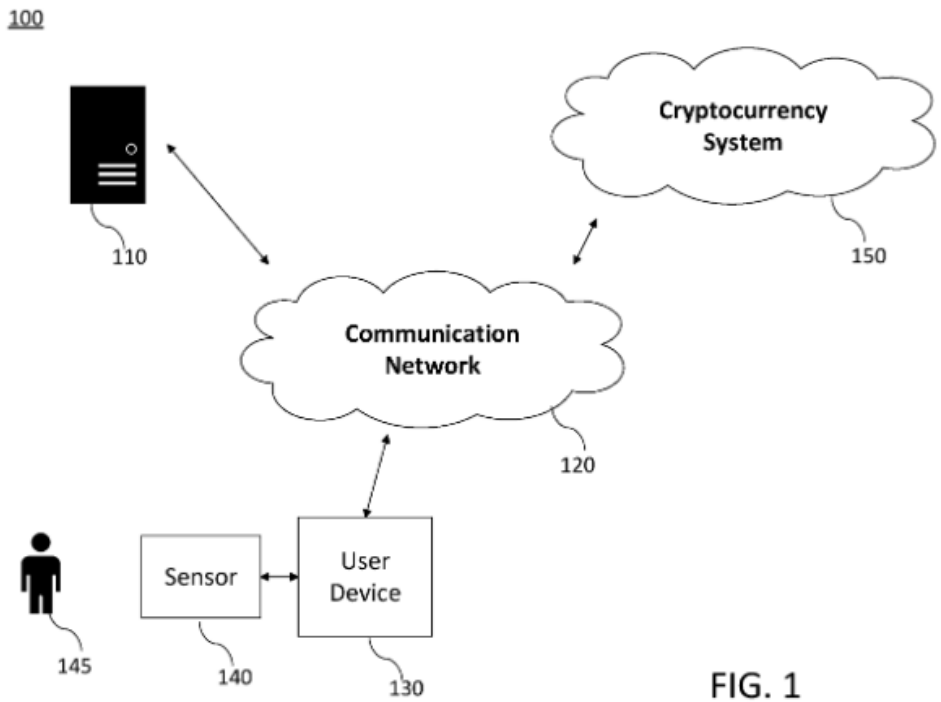


FIG. 1

https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020060606

US011107588B2

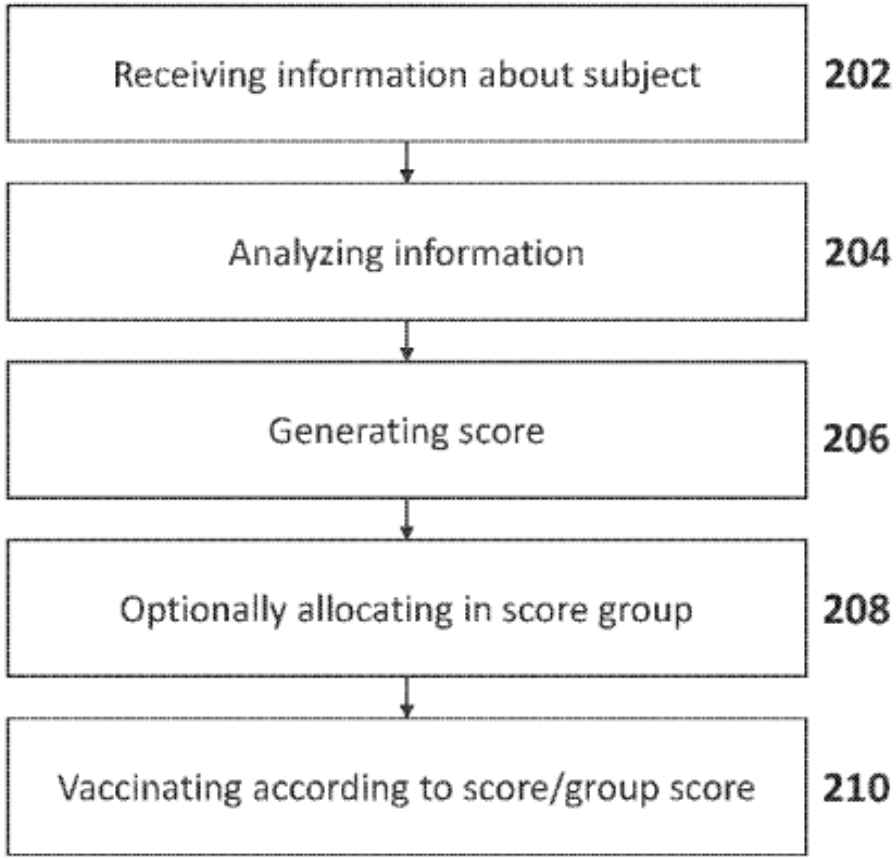
(12) **United States Patent**
Ehrlich et al.

(10) **Patent No.: US 11,107,588 B2**
(45) **Date of Patent: Aug. 31, 2021**

(54) **METHODS AND SYSTEMS OF PRIORITIZING TREATMENTS, VACCINATION, TESTING AND/OR ACTIVITIES WHILE PROTECTING THE PRIVACY OF INDIVIDUALS**

https://patentimages.storage.googleapis.com/68/80/73/6a17a66e9ec8c5/US11107588.pdf

https://patents.google.com/?inventor=Lieber%2c+Charles&oq=Lieber%2c+Charles

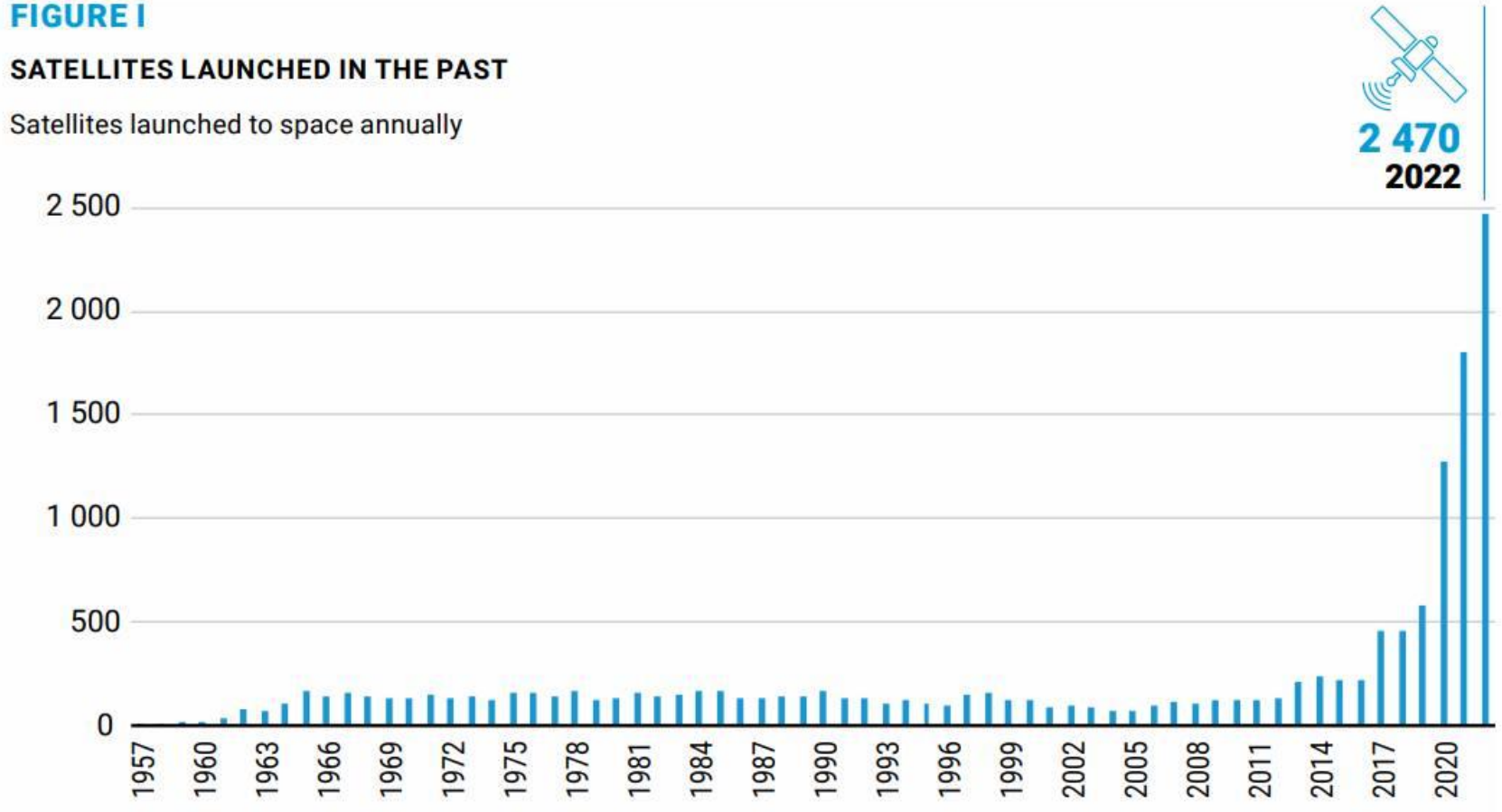


Satellites into outer space

FIGURE I

SATELLITES LAUNCHED IN THE PAST

Satellites launched to space annually



Source: Office for Outer Space Affairs

https://www.un.org/sites/un2.un.org/files/our-common-agenda-policy-brief-outer-space-en.pdf

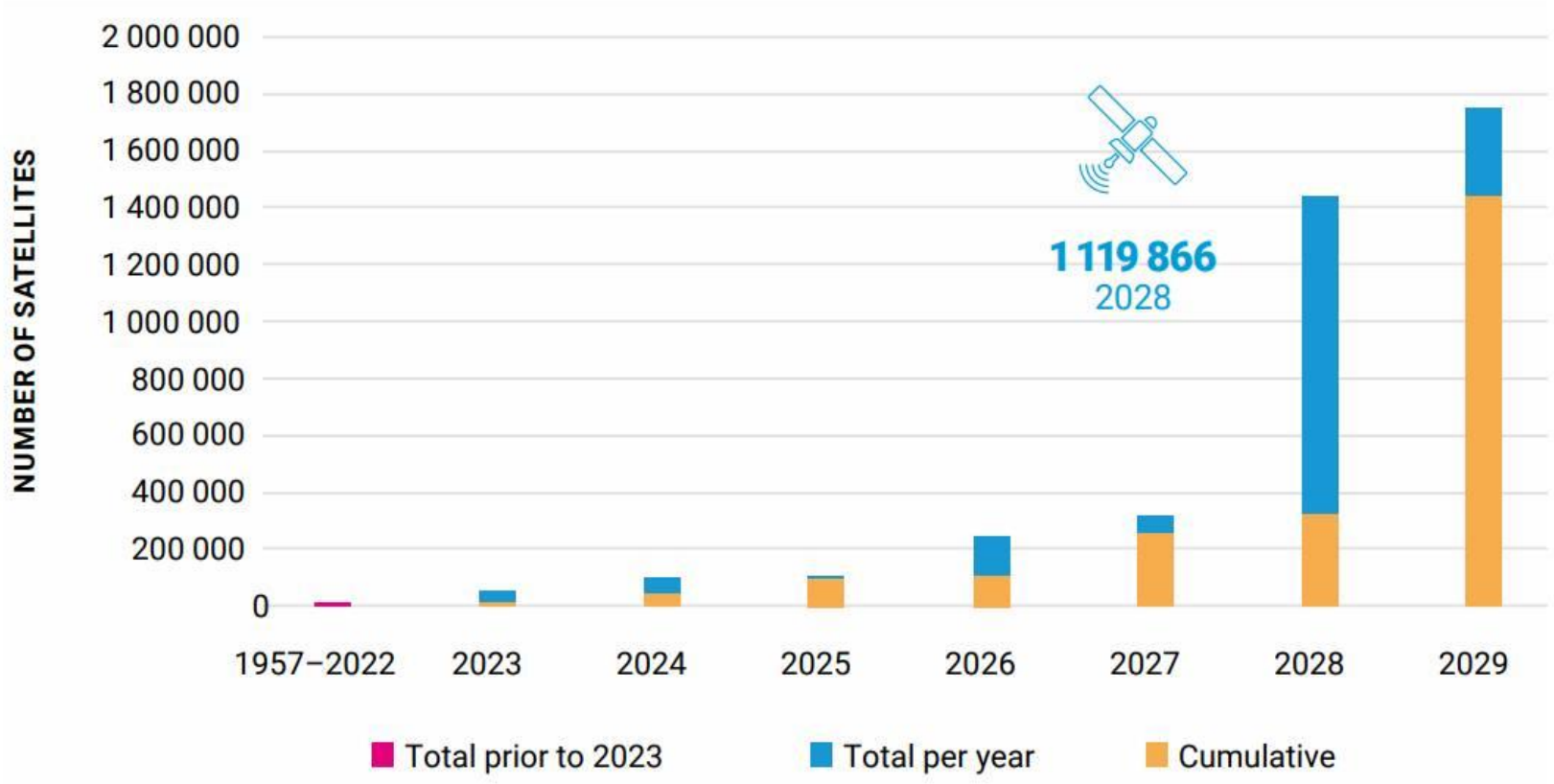
Satellites into outer space

FIGURE II

SATELLITES REGISTERED TO LAUNCH IN THE FUTURE

Number of non-geostationary satellites for which states have registered radio frequecies with the International Telecommunication Union (by year and cummulative)

For past launches, see figure I.

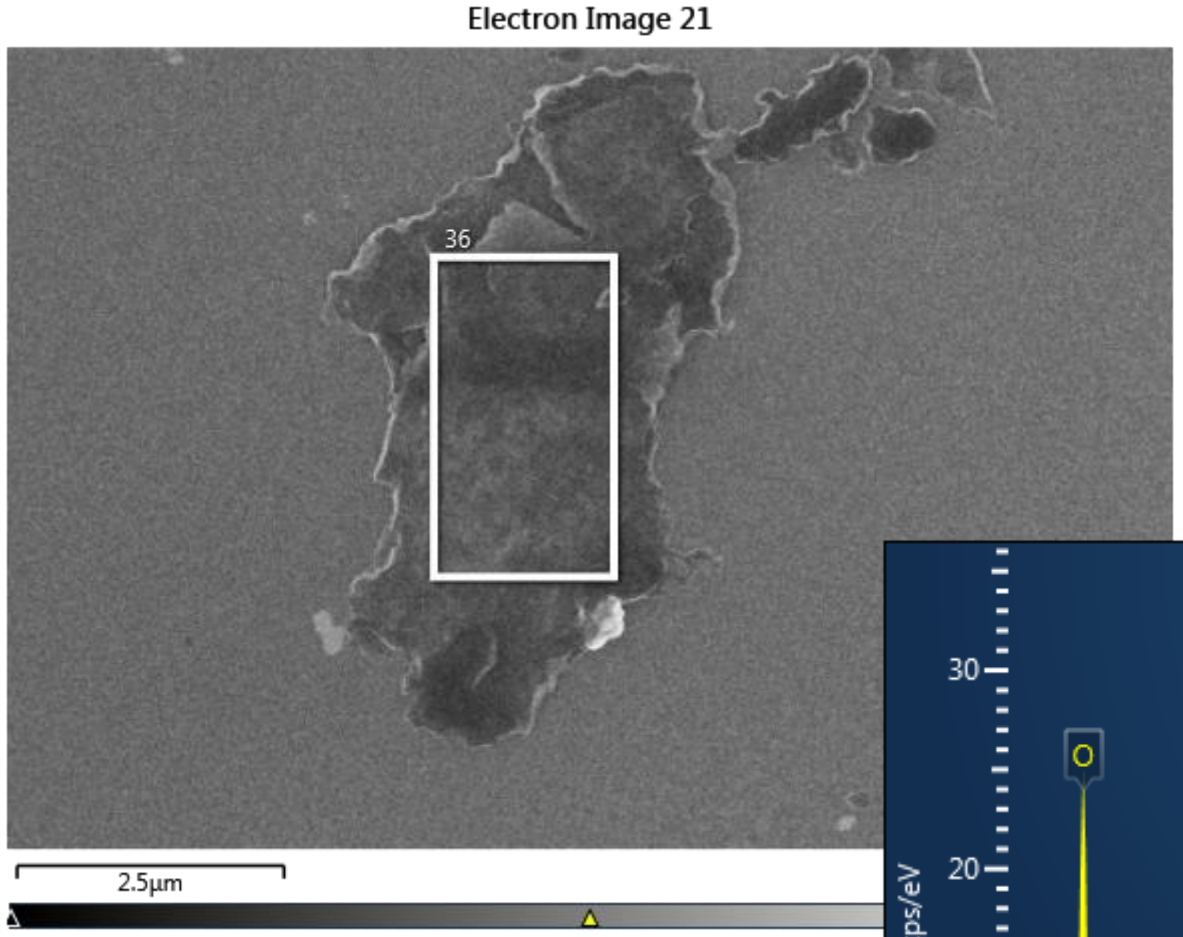


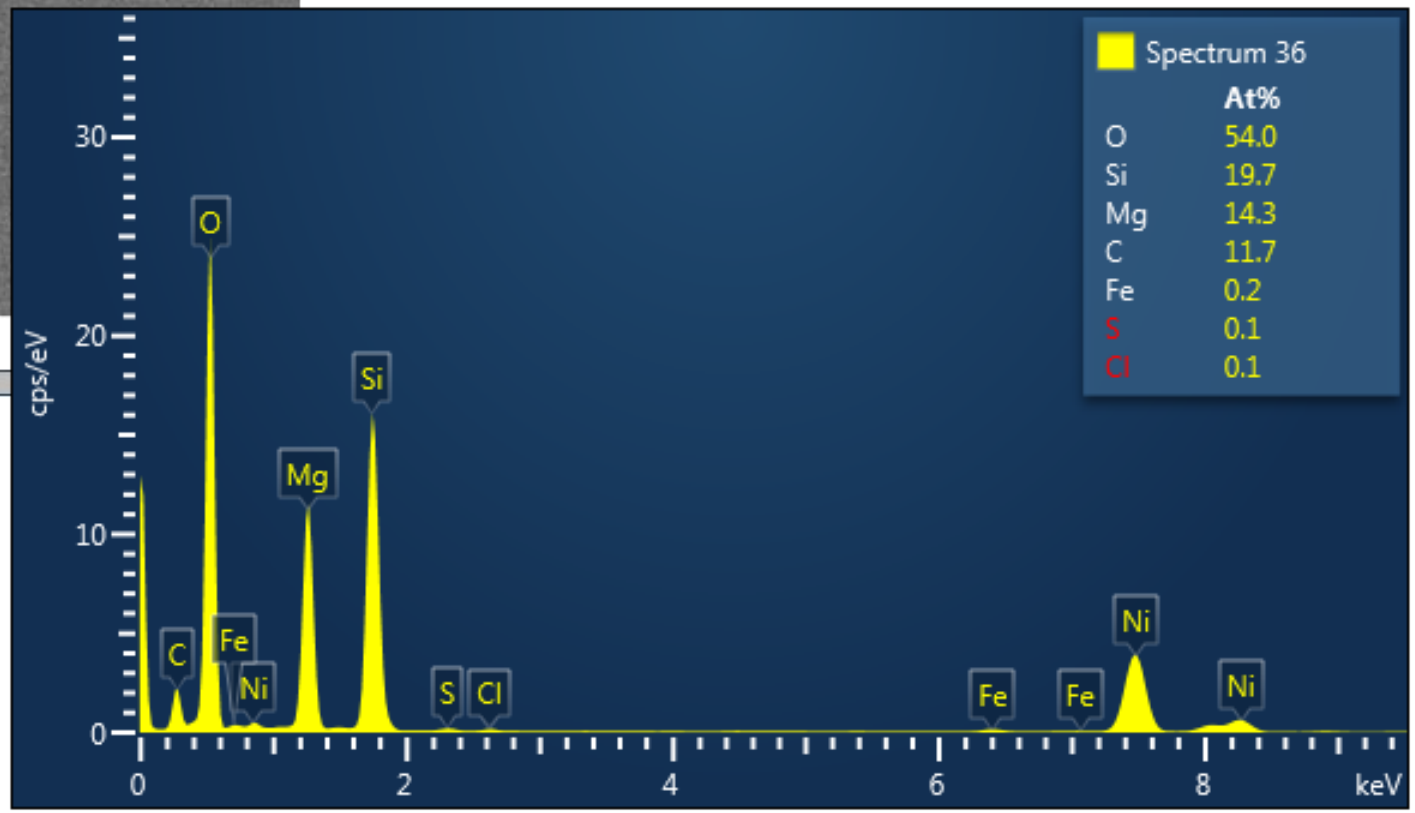
- https://www.un.org/sites/un2.un.org/files/our-common-agenda-policy-brief-outer-space-en.pdf

ARTIDENTAL - dental anesthetic

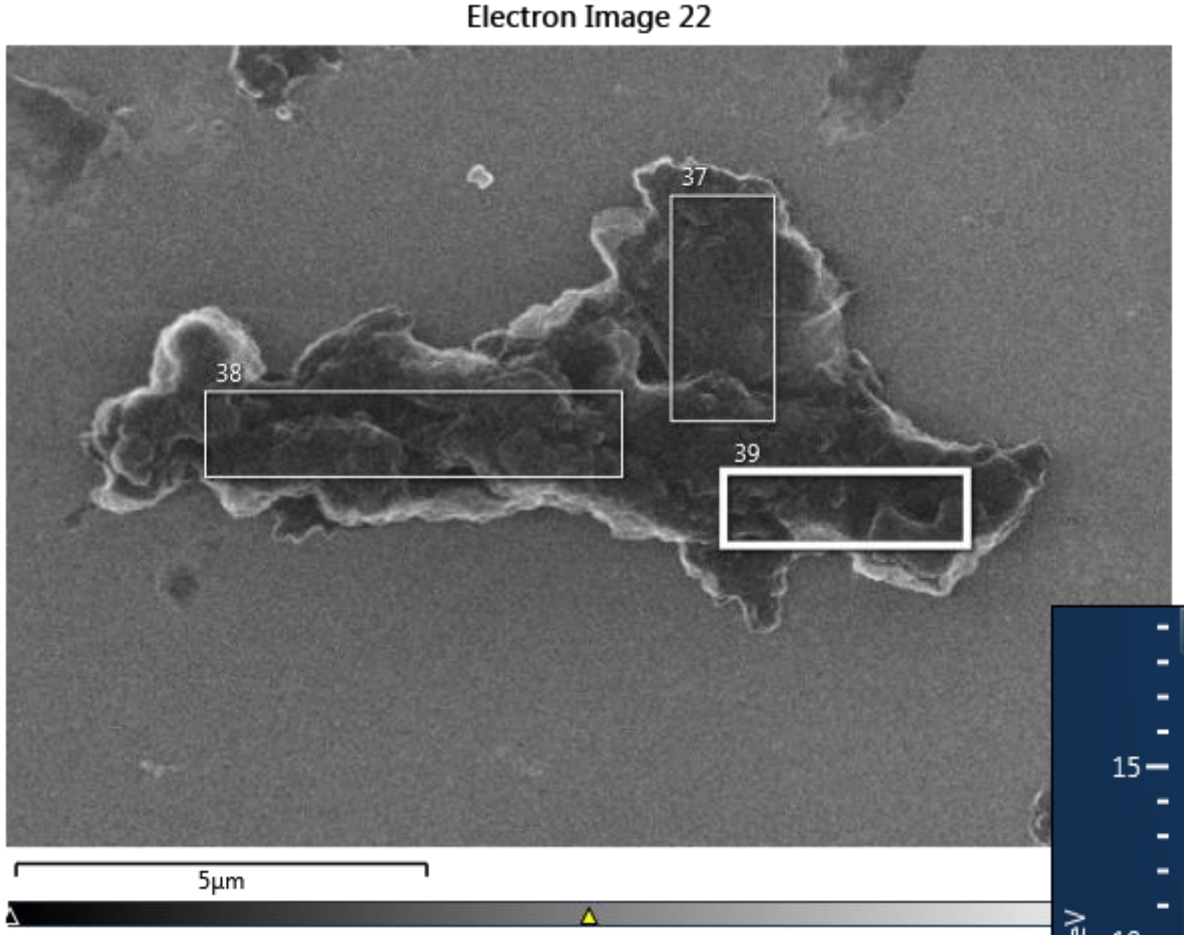
- The active substances are articaine hydrochloride and adrenaline tartrate.
- The other ingredients are sodium metabisulphite (E 223), sodium chloride, citric acid monohydrate, hydrochloric acid (for pH adjustment), sodium hydroxide solution (for pH adjustment) and water for injections.

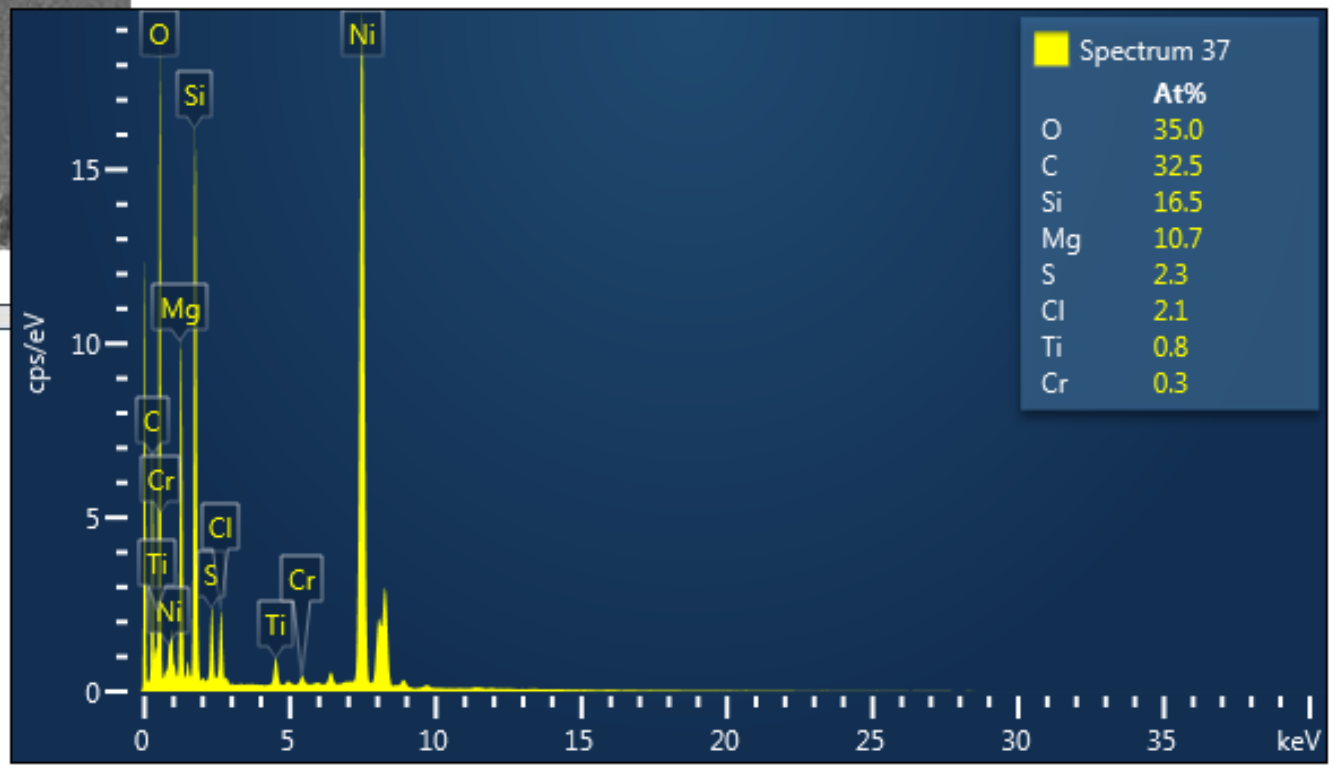
ARTIDENTAL – dental anesthetic



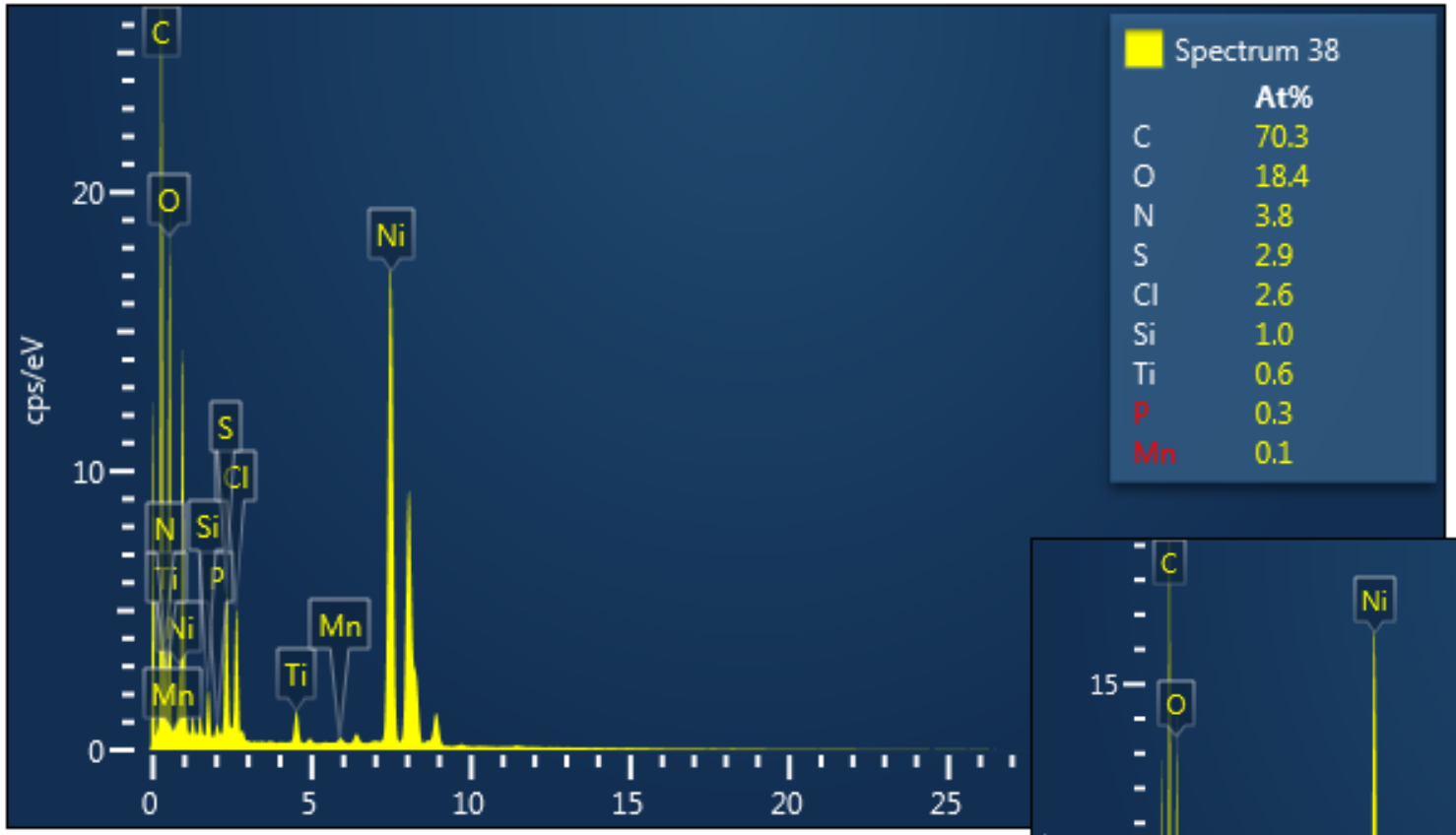


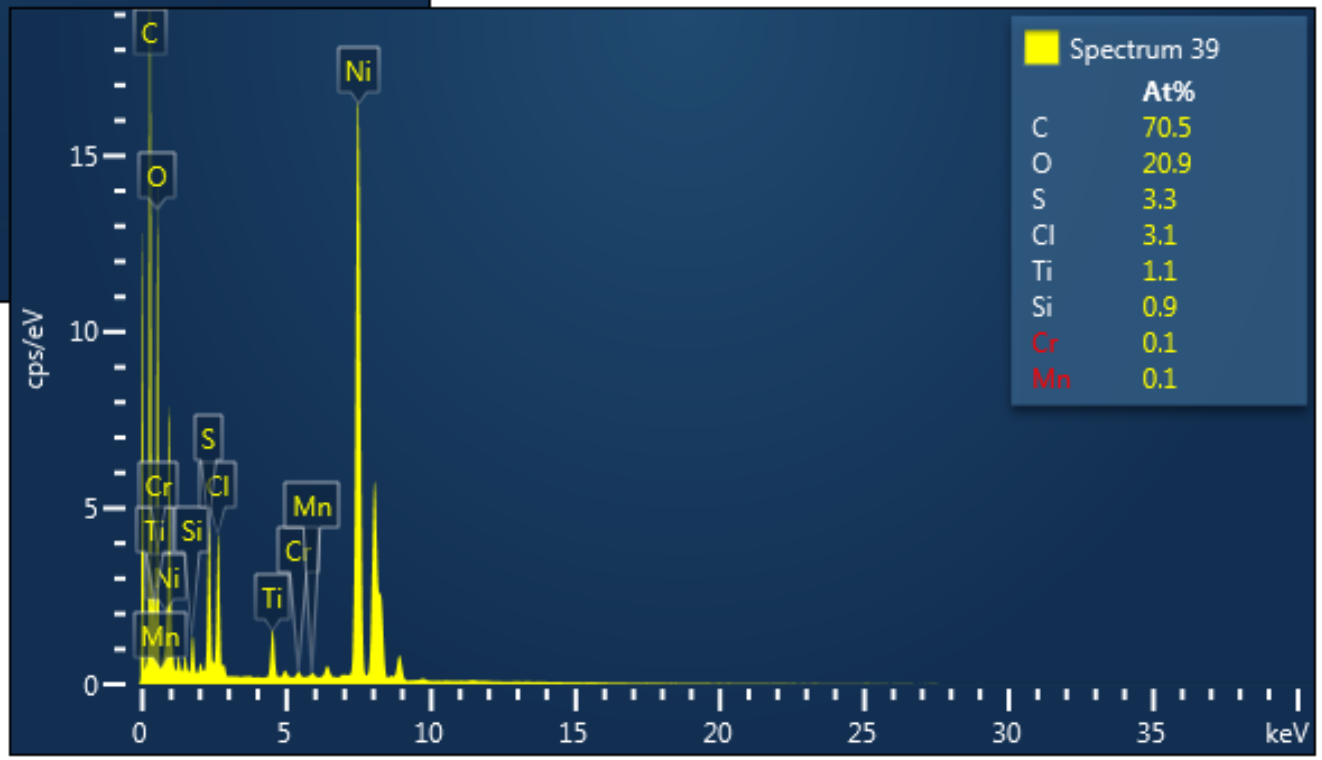
ARTIDENTAL – dental anesthetic



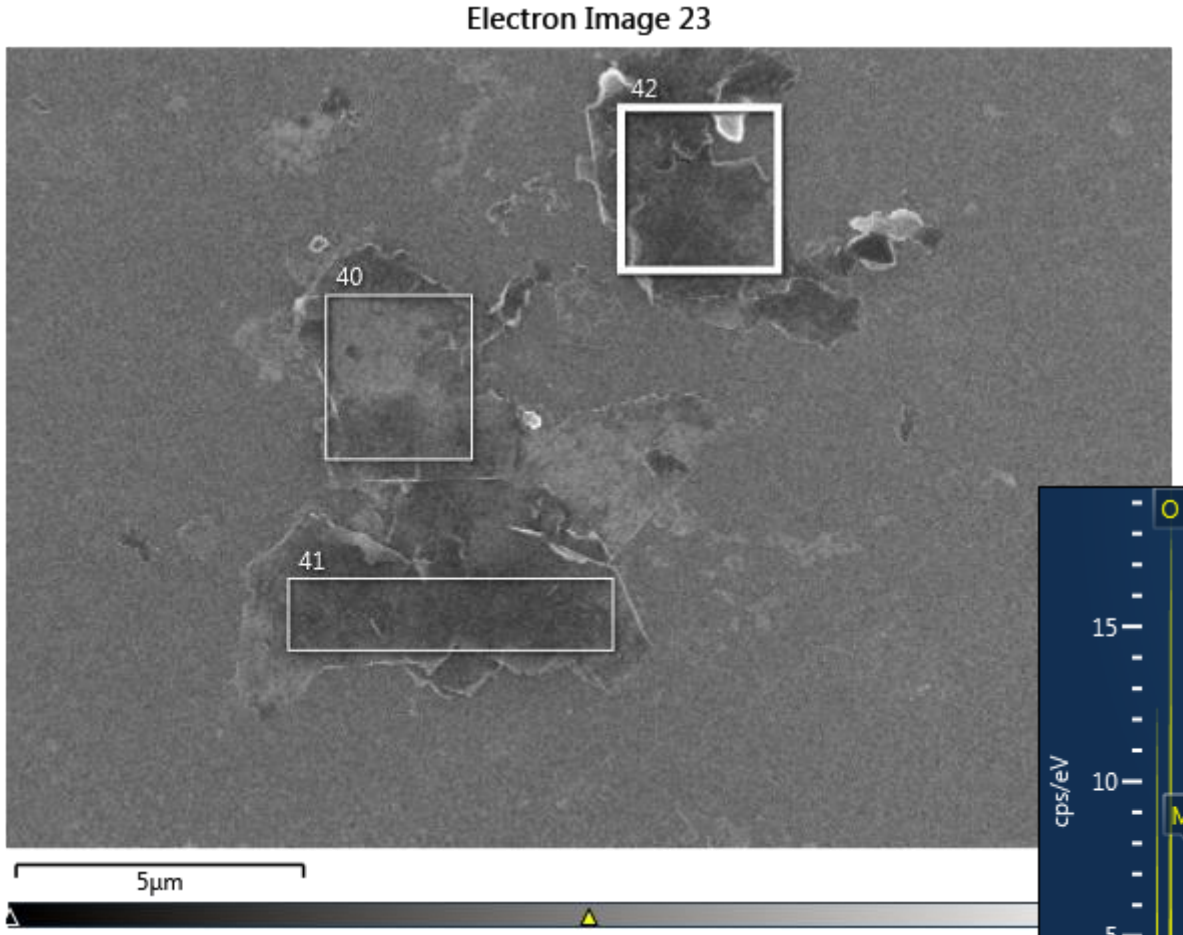


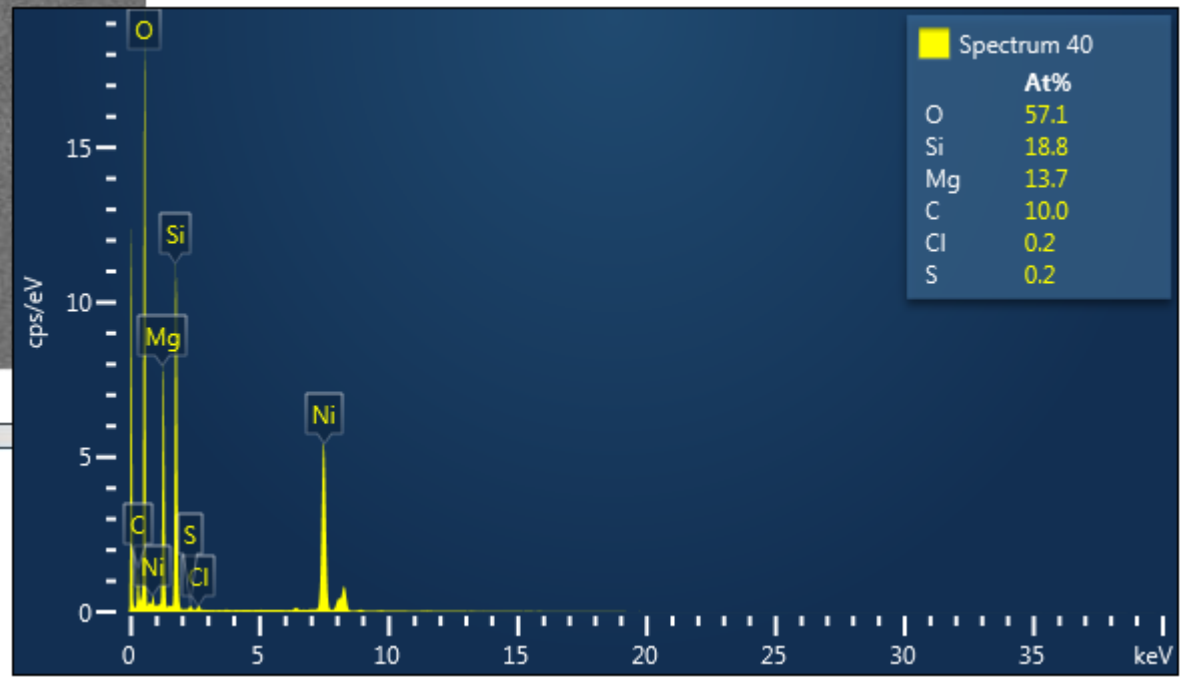
ARTIDENTAL - dental anesthetic



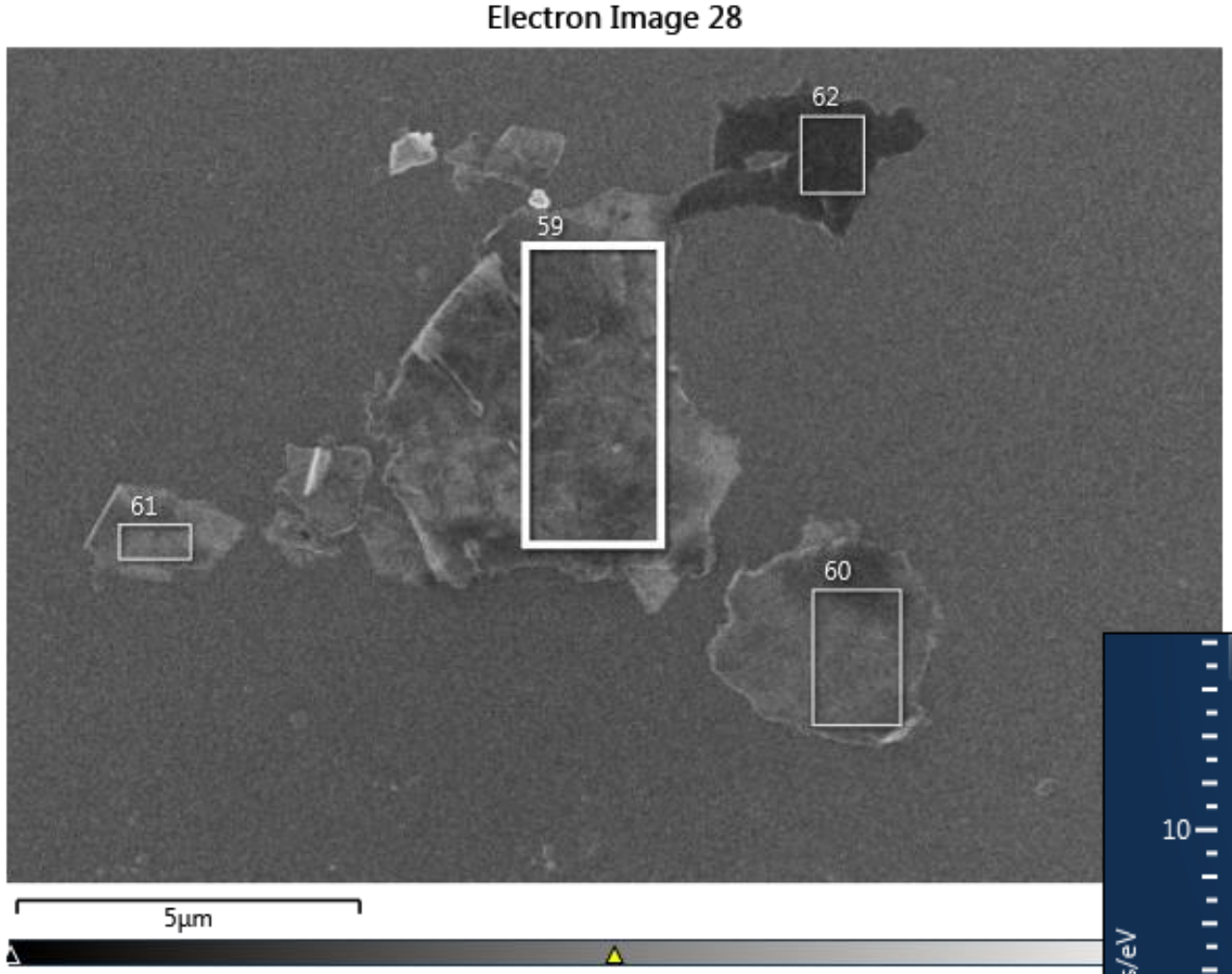


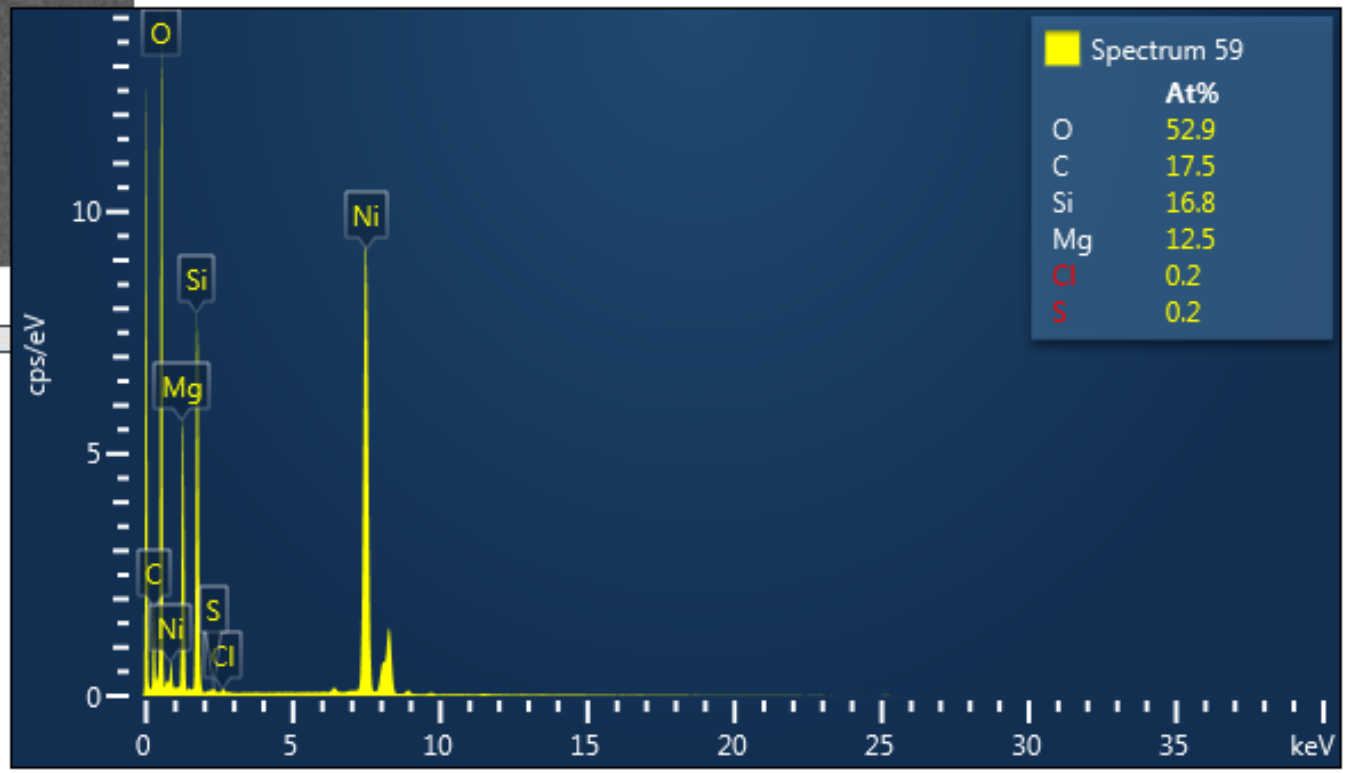
ARTIDENTAL – dental anesthetic



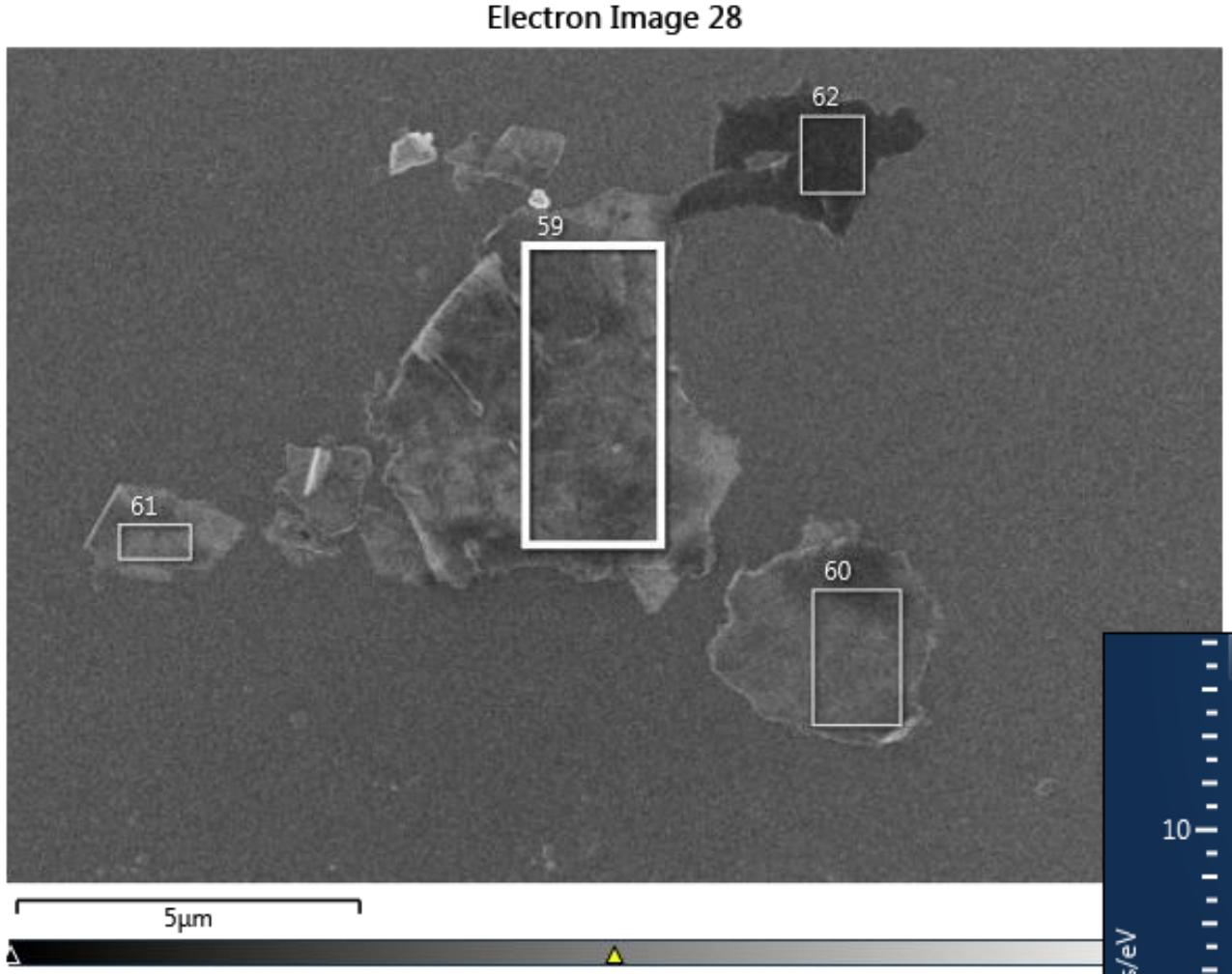


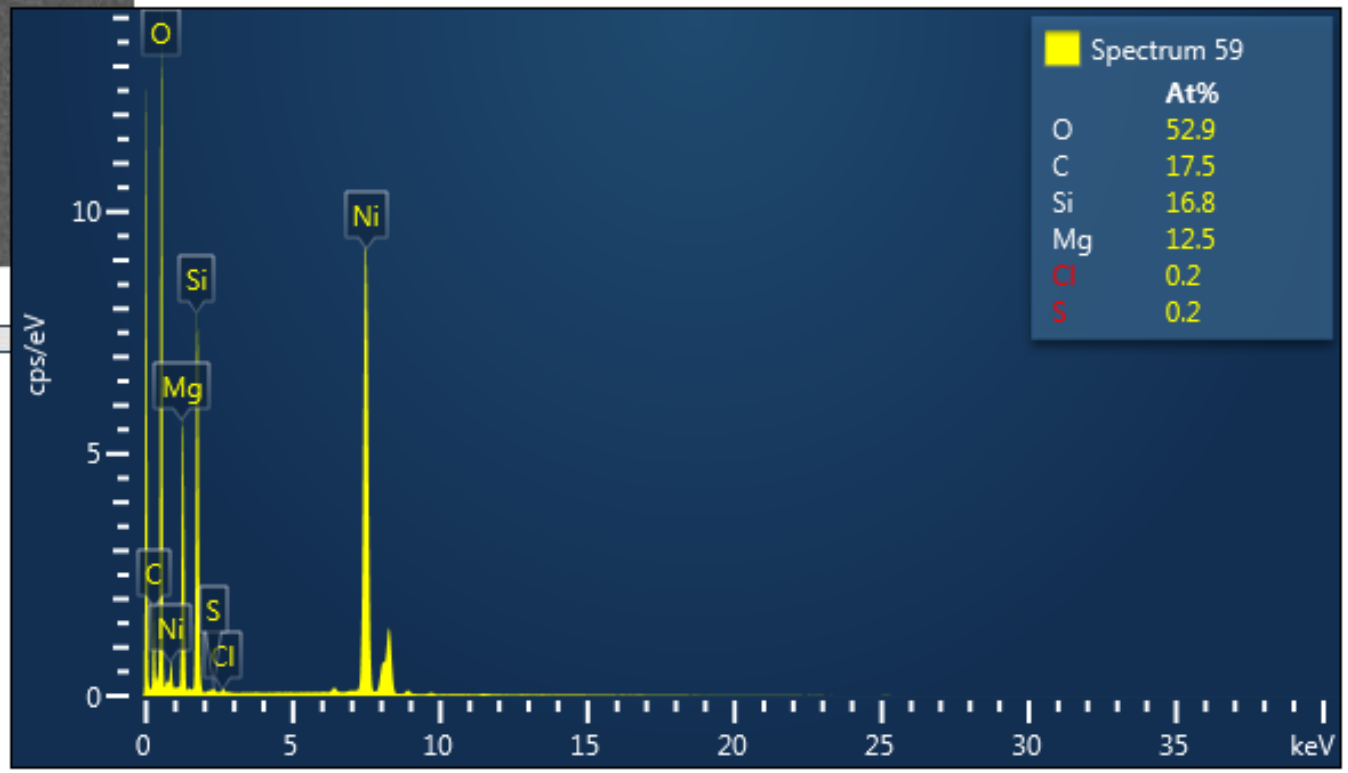
ARTIDENTAL – dental anesthetic



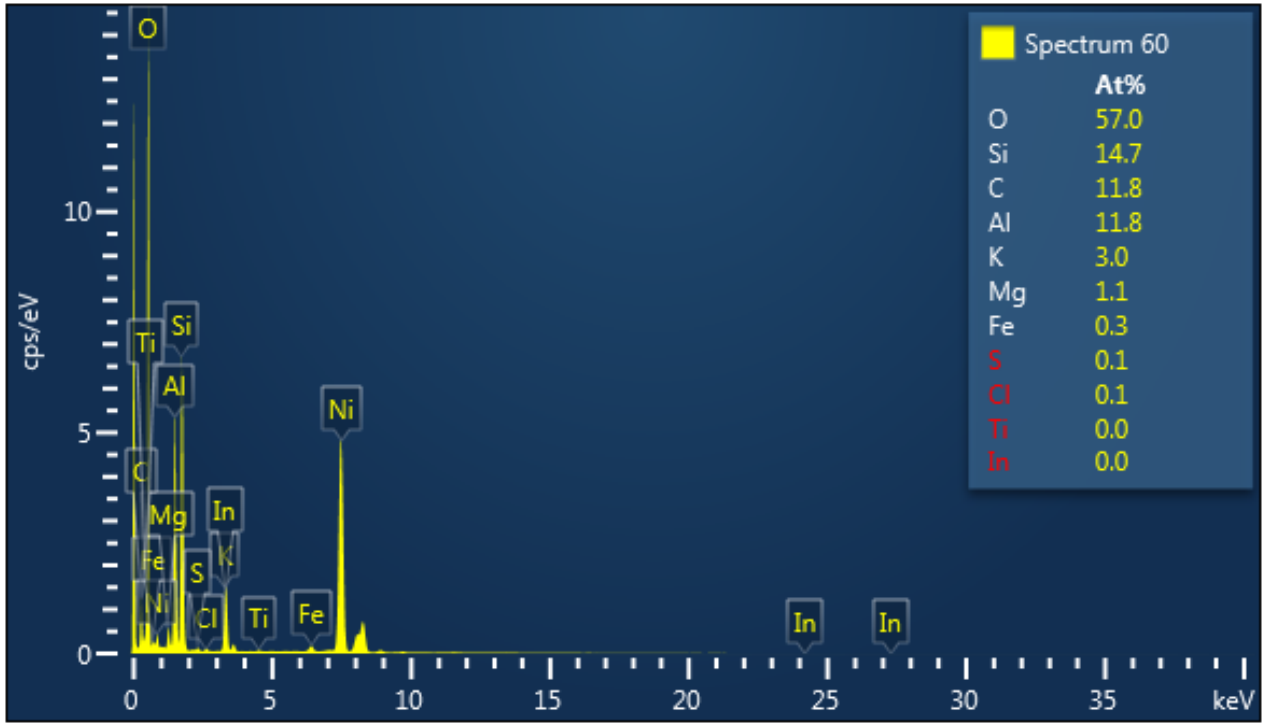


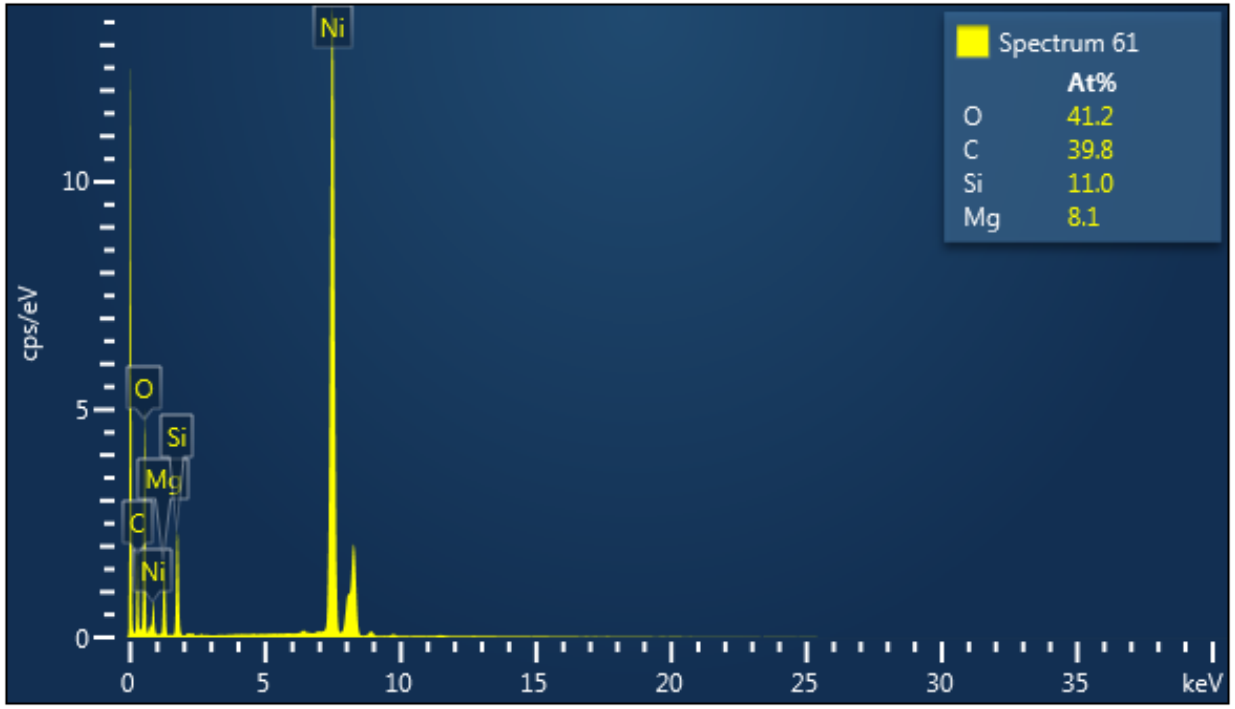
ARTIDENTAL – dental anesthetic

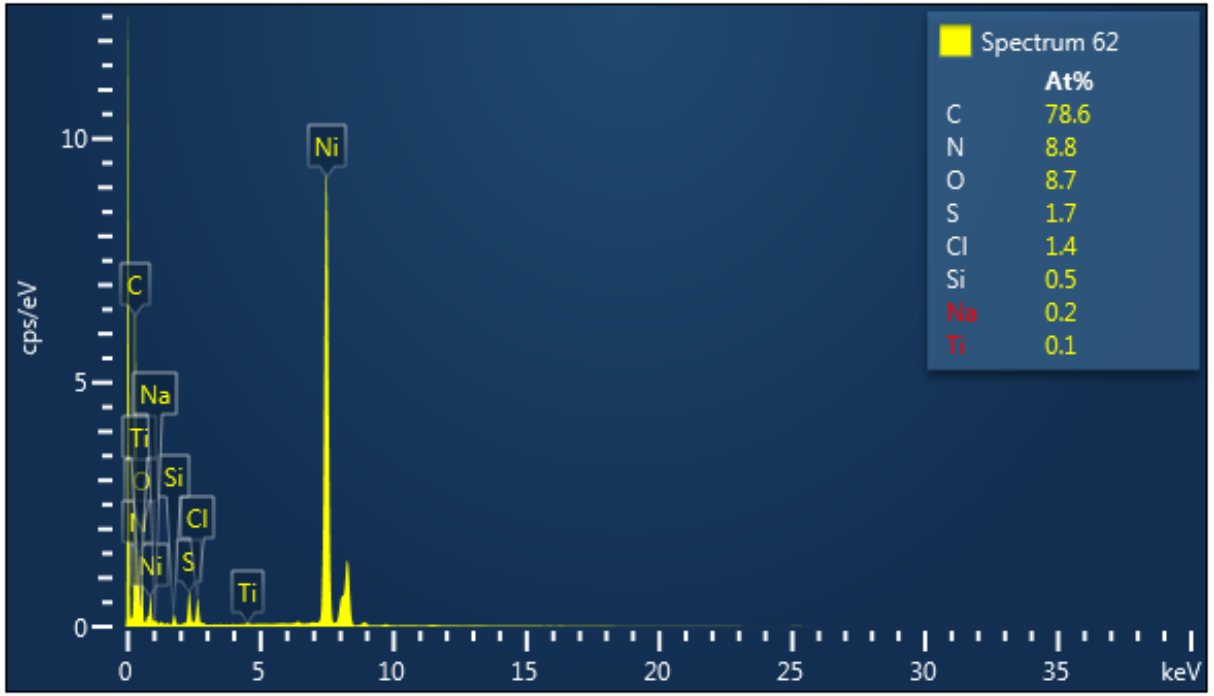




ARTIDENTAL - dental anesthetic





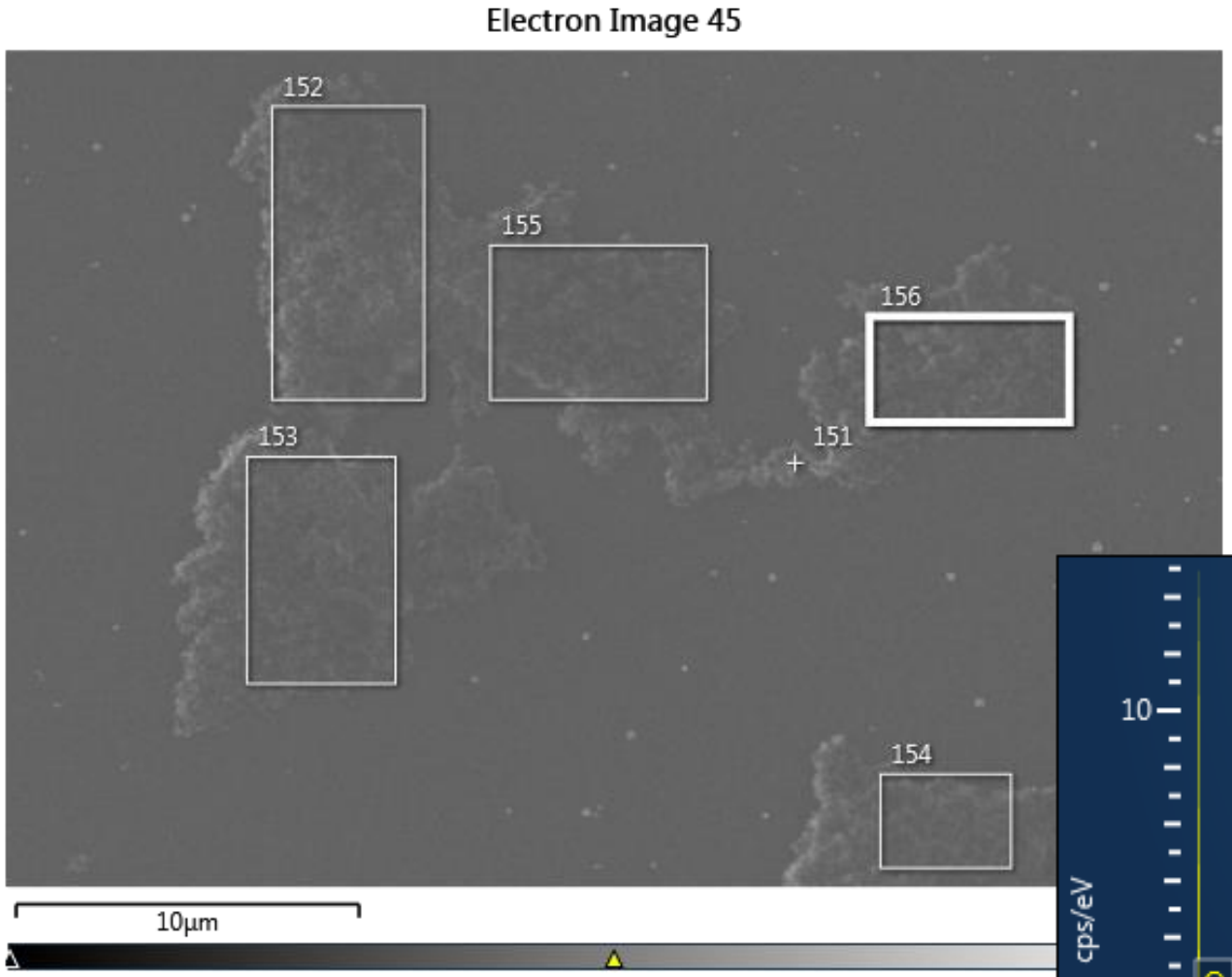


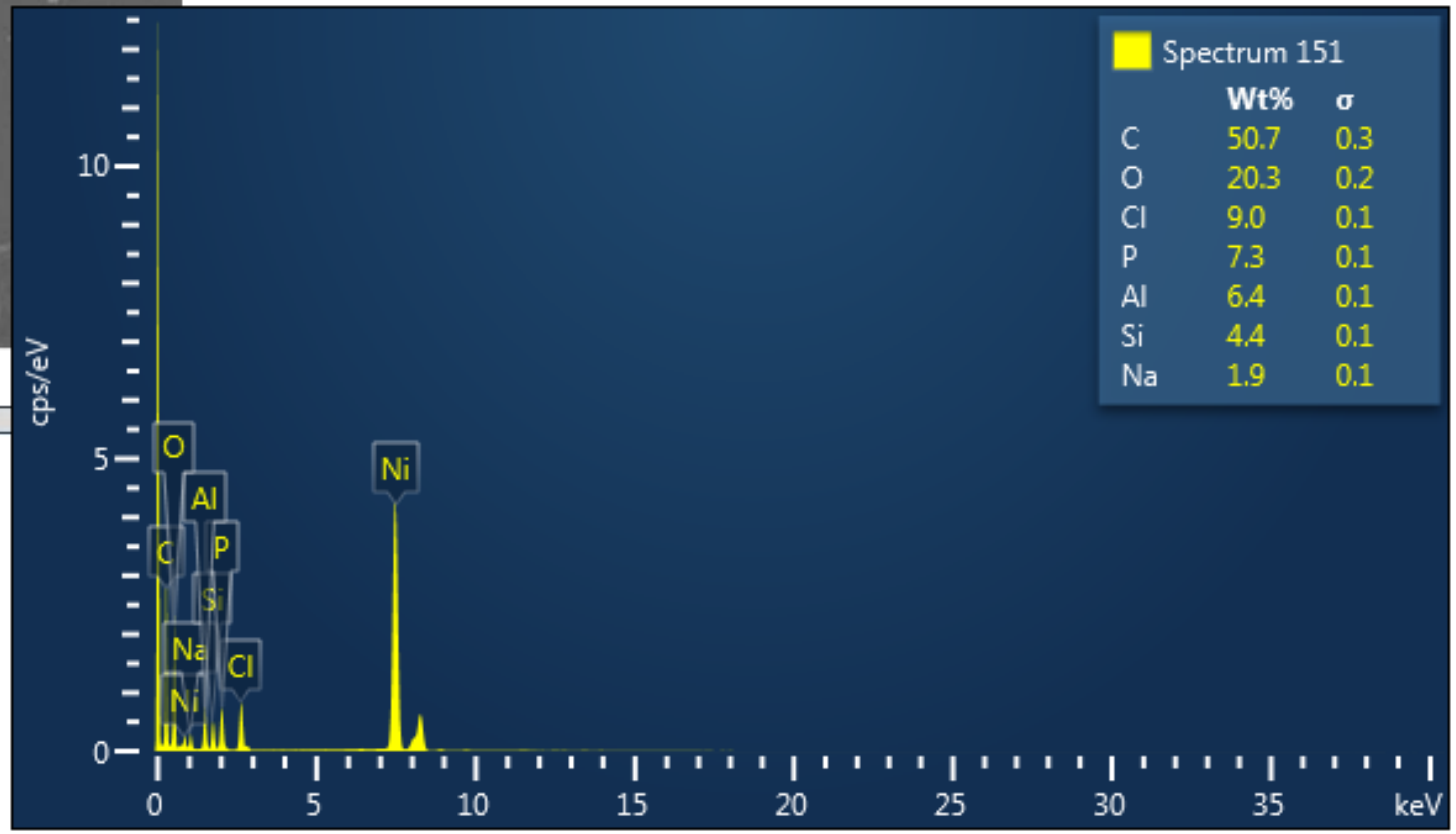
Prevenar Vaccine – pneumococcal polysaccharide conjugate vaccine – Pfizer

- 1 dose (0.5 ml) contains approximately 32 µg CRM197 carrier protein and 0.125 mg aluminium.
- List of excipients: Sodium chloride, Succinic acid, polysorbate 80 water for injections

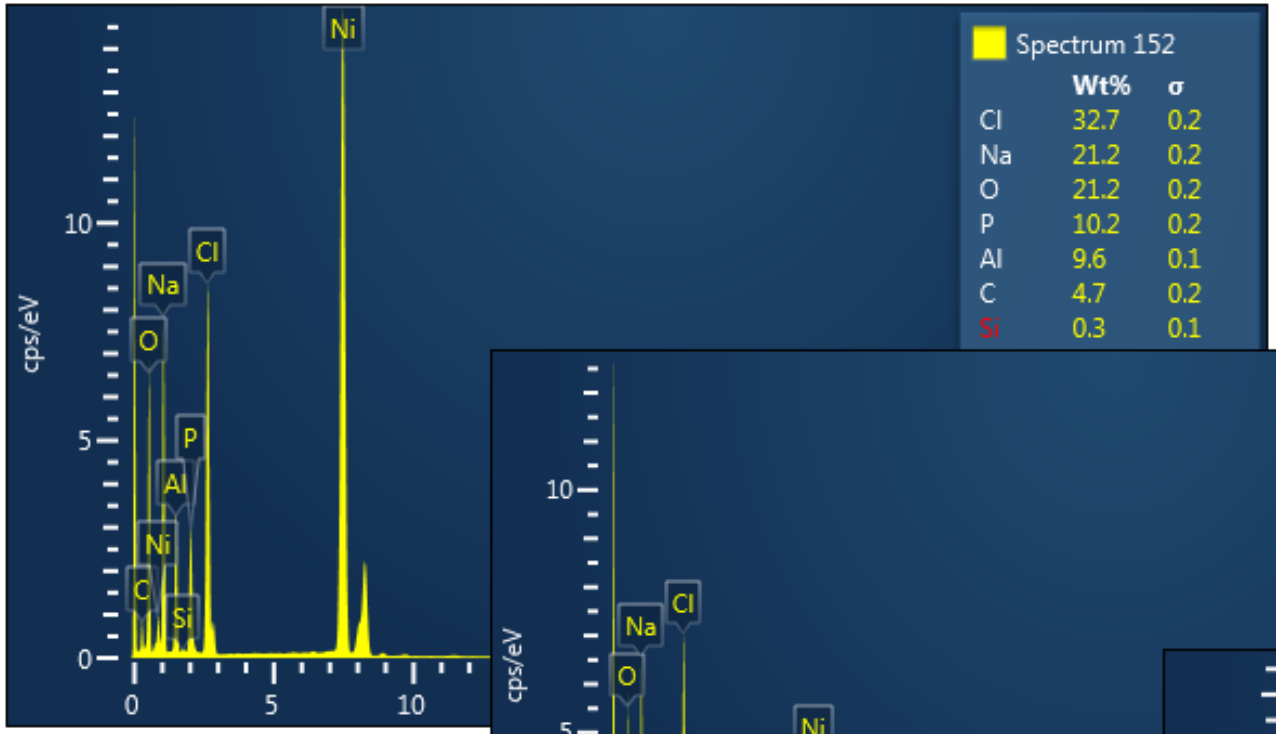
https://www.ema.europa.eu/en/documents/product-information/prevenar-13-epar-product-information_en.pdf

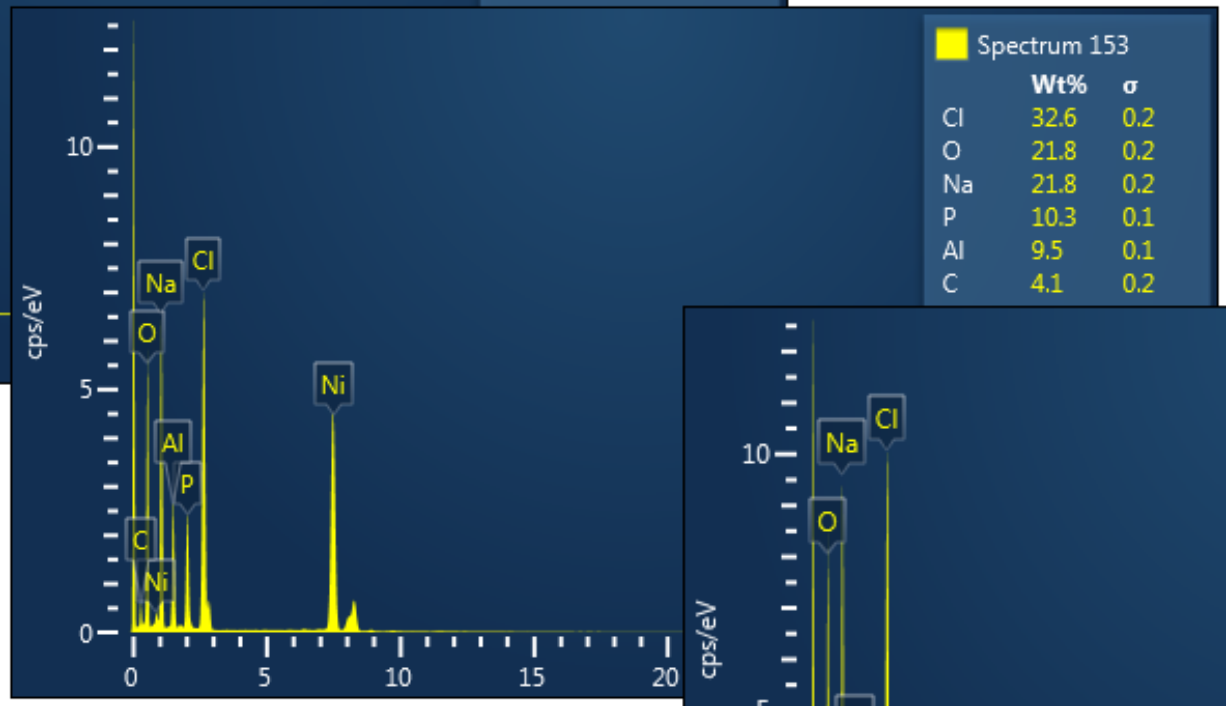
Prevenar Vaccine pneumococcal vaccine – Pfizer

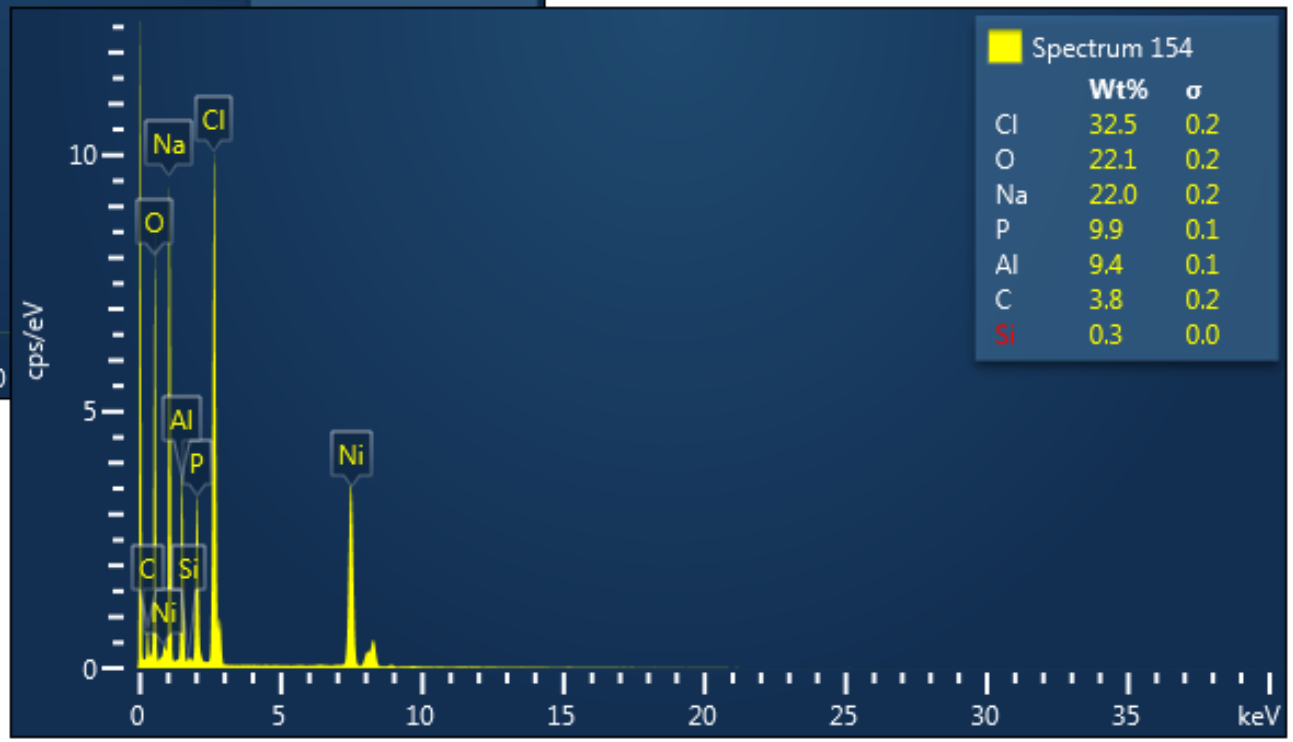




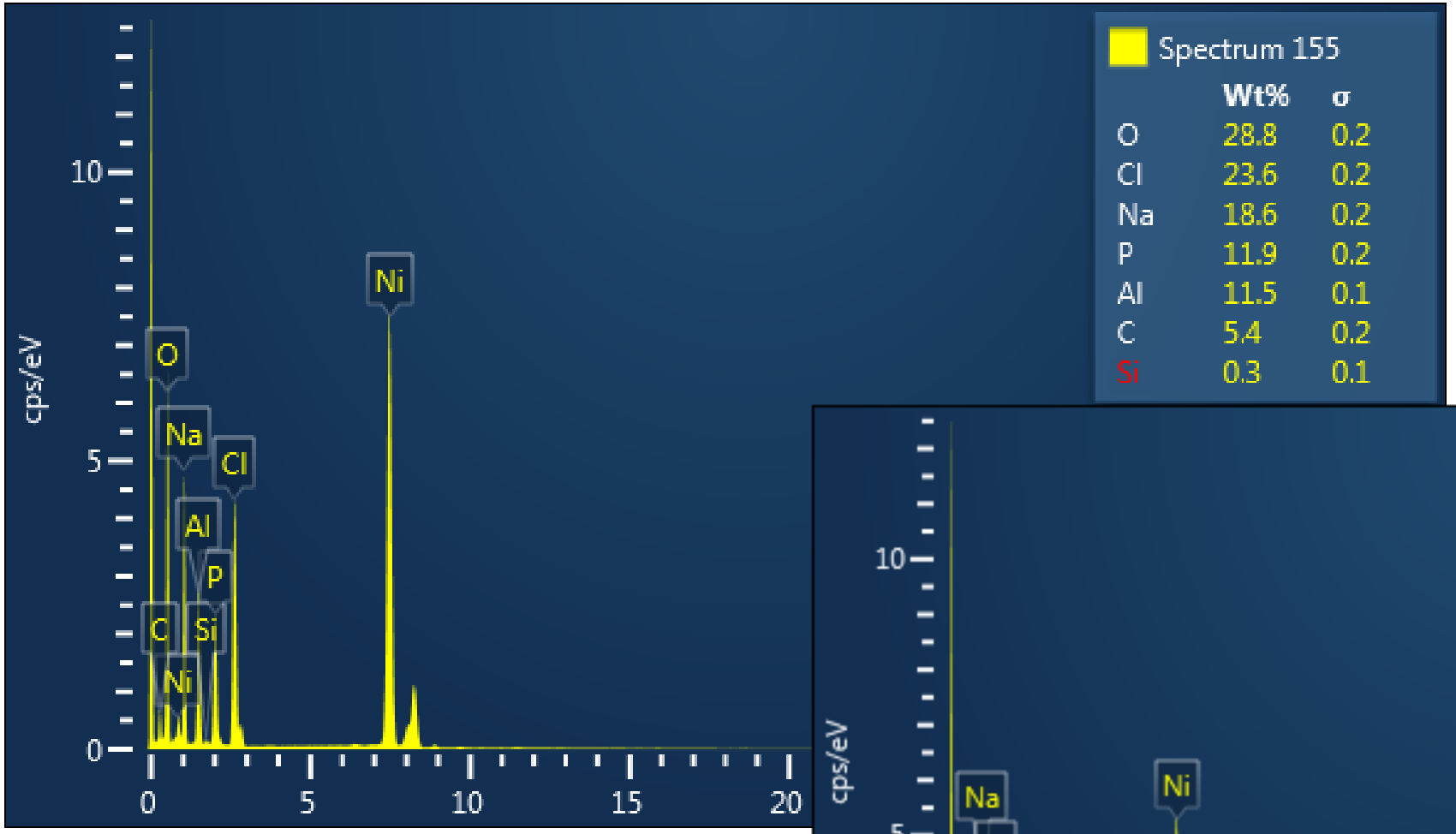
Prevenar Vaccine pneumococcal vaccine – Pfizer

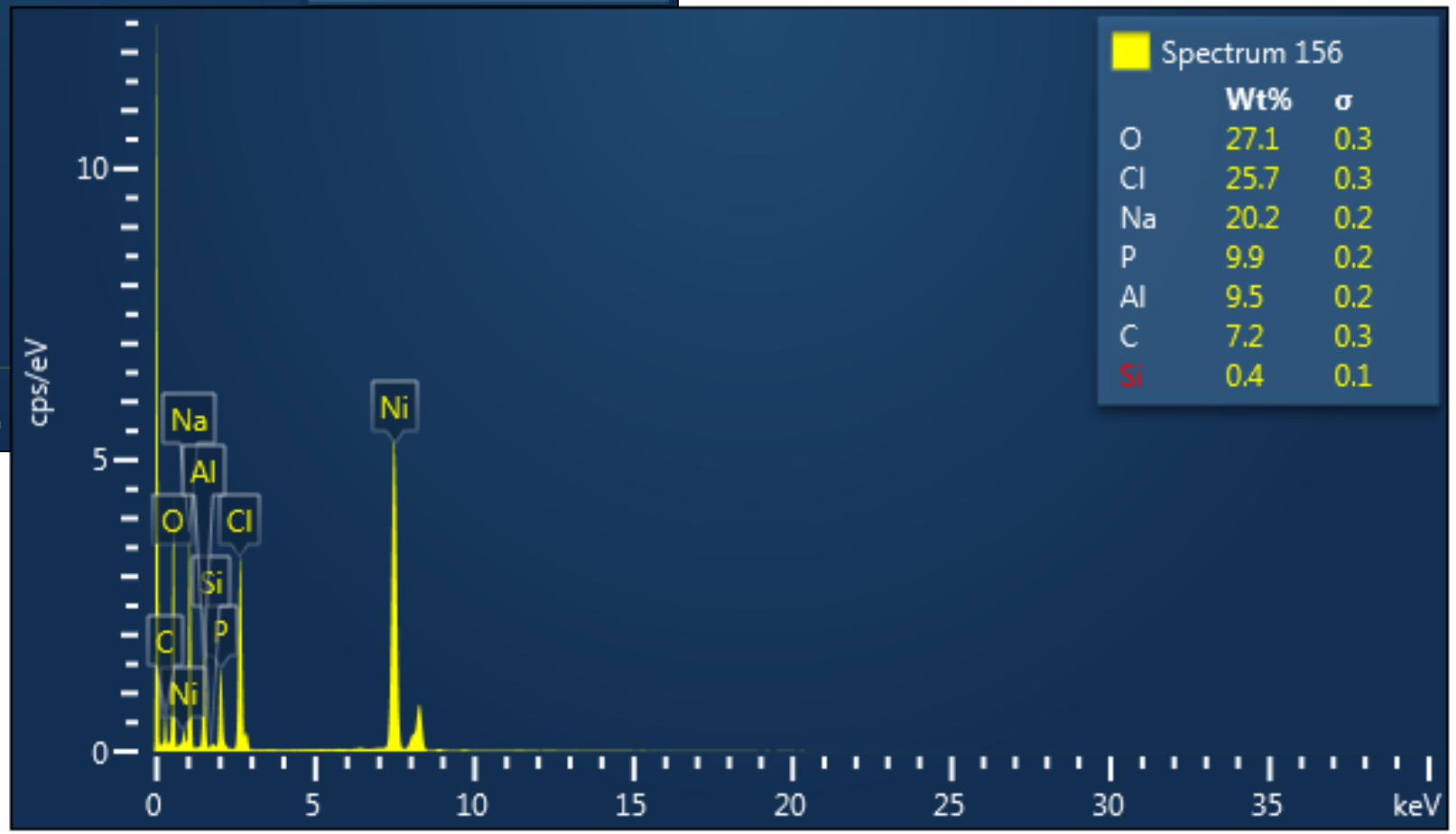




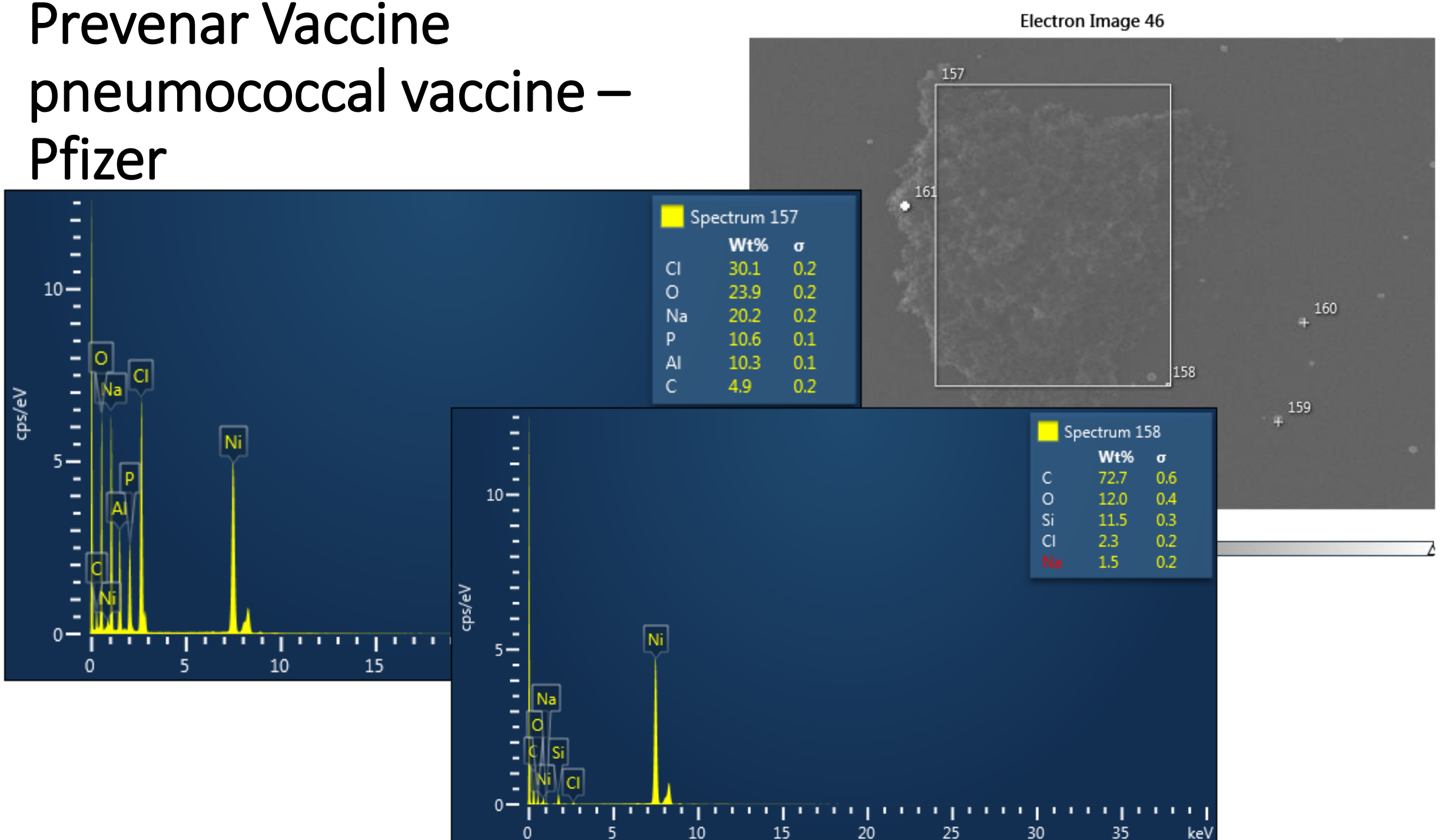


Prevenar Vaccine pneumococcal vaccine – Pfizer

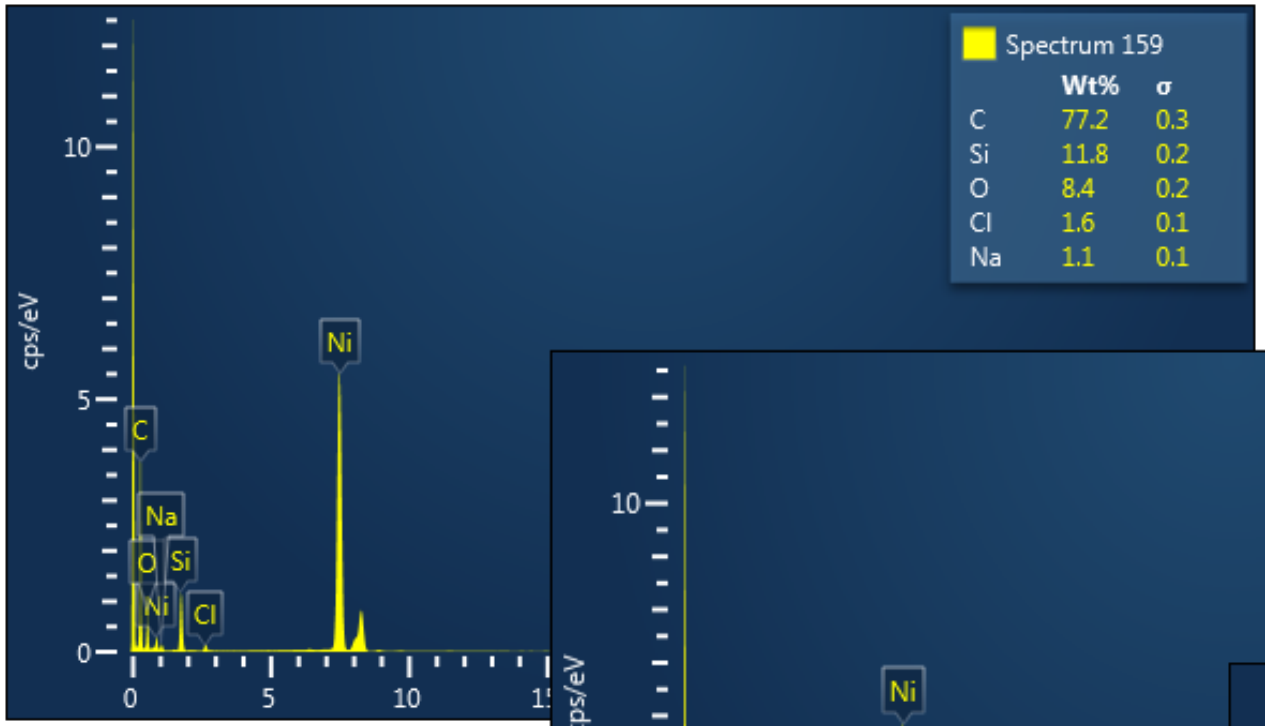


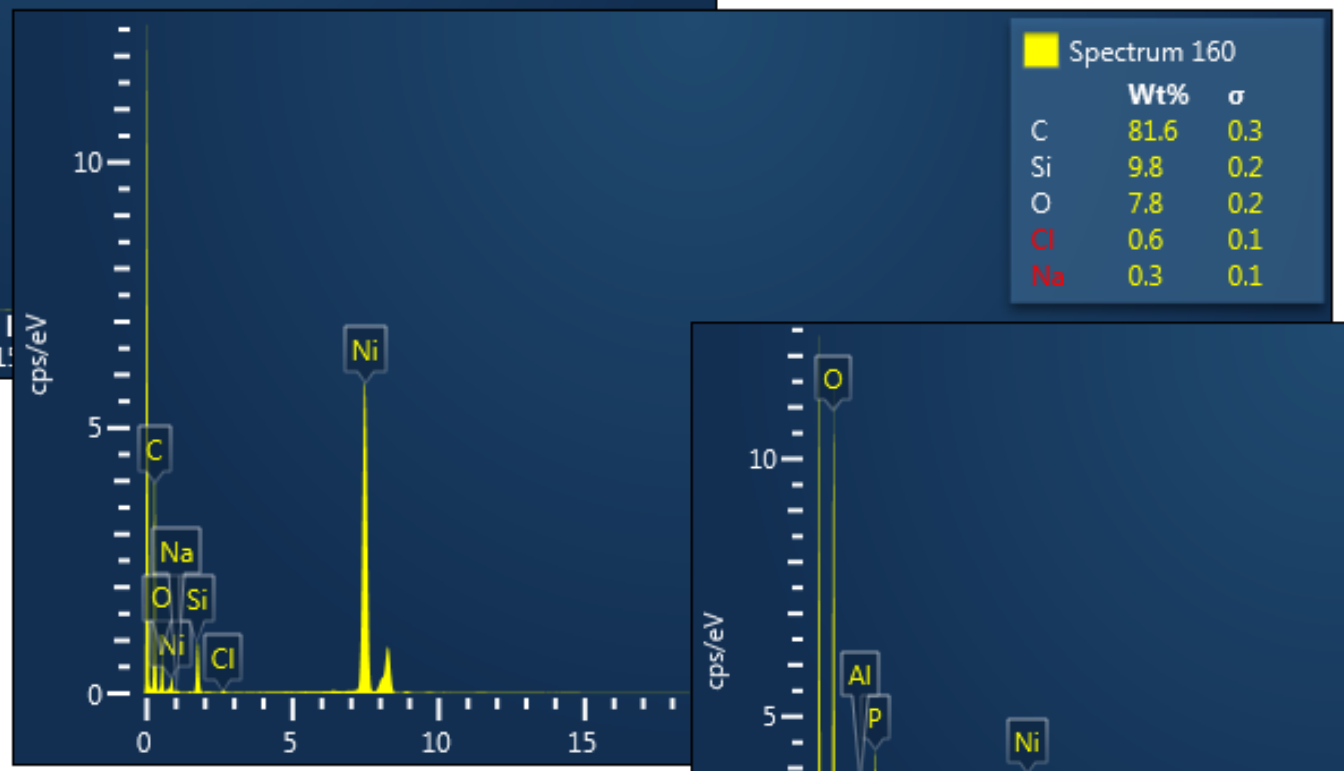


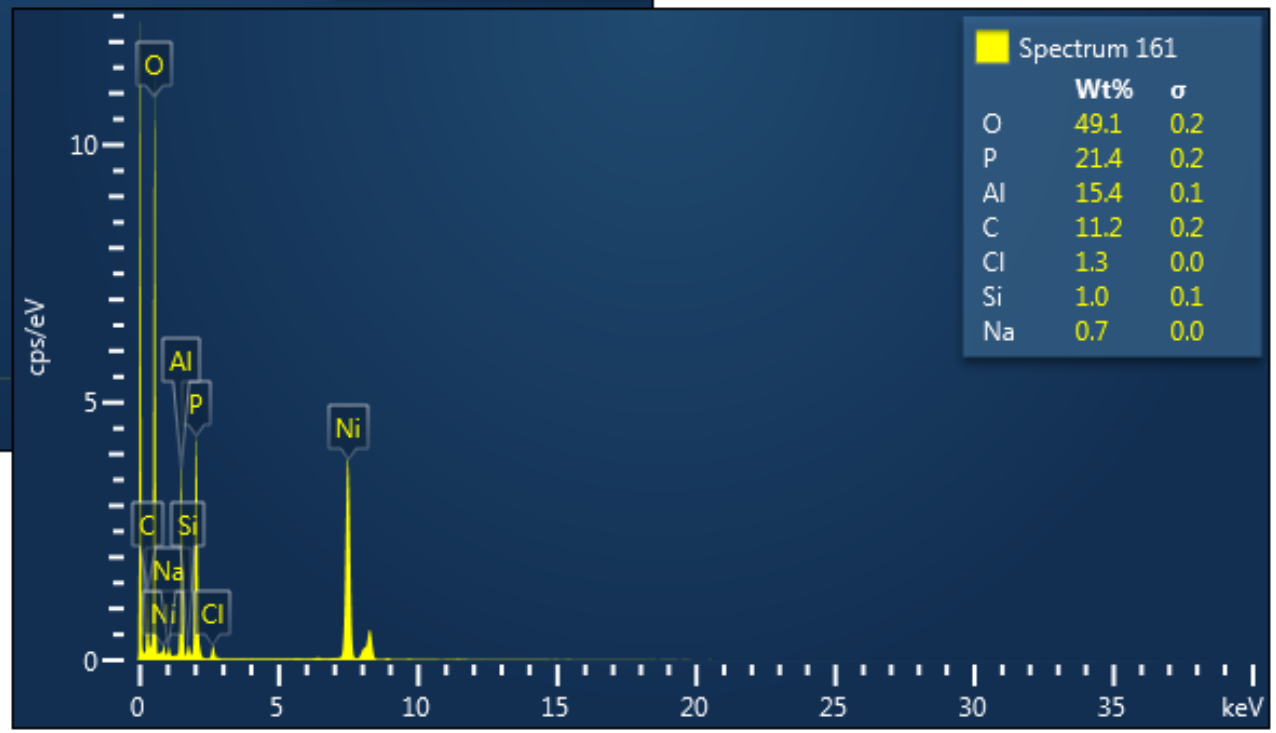
Prevenar Vaccine pneumococcal vaccine – Pfizer



Prevenar Vaccine pneumococcal vaccine – Pfizer





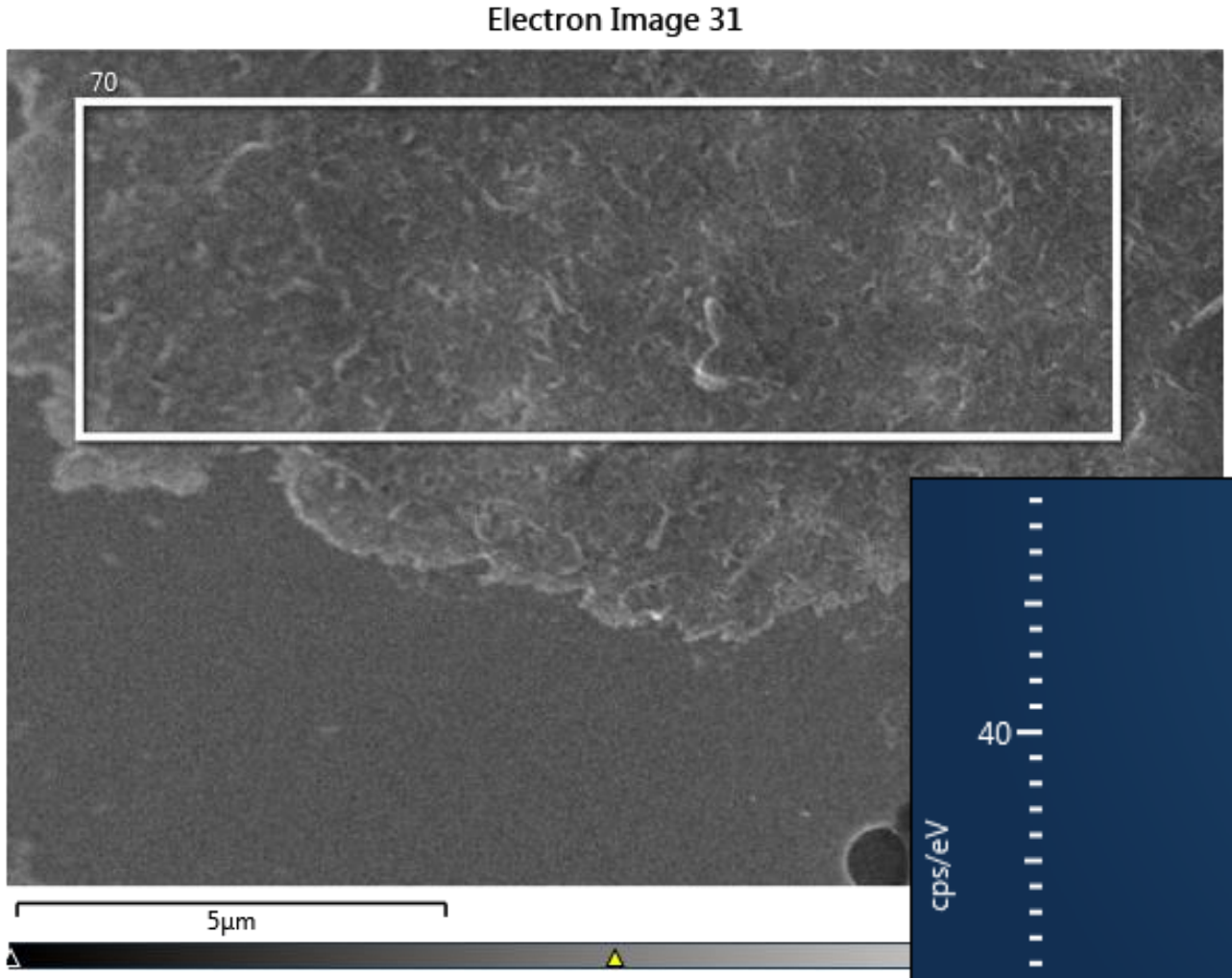


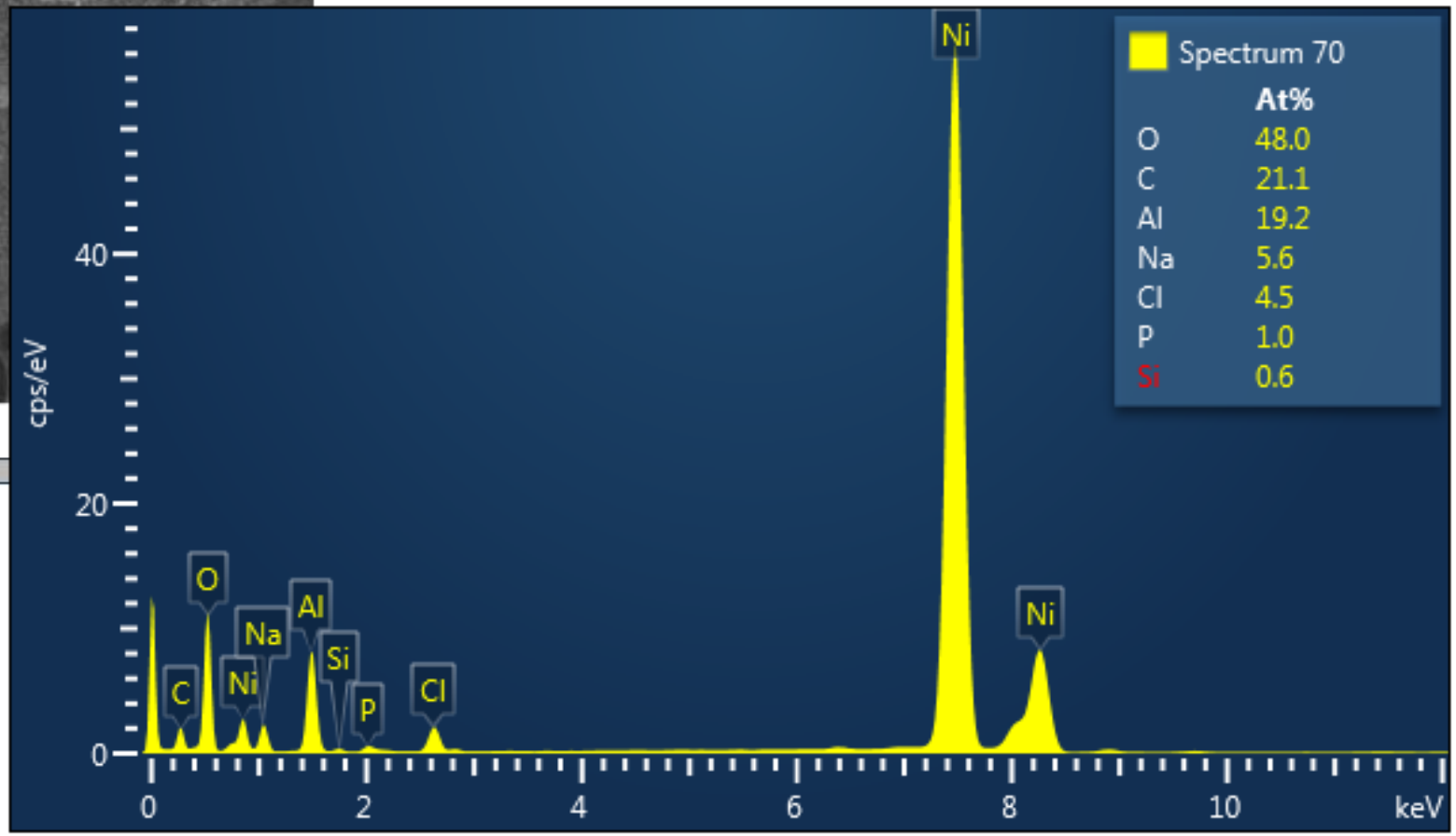
HAVRIX Adult - Hepatitis A Vaccine, inactivated - GlaxoSmithKline Biologicals-

- HA VRIX 1440 Adult: Each 1.0 mL dose contains not less than 1440 El.U of virus antigen adsorbed onto 0.5 mg aluminum hydroxide.
- The vaccine also contains 0.5% (w/v) of 2-phenoxyethanol as a preservative. Other excipients are amino acid supplement (0.3% w/v) in a phosphate buffered solution and polysorbate 20 (0.5 mg/mL). Residual MRC5 cellular proteins (not more than 5 mcg/mL) and traces of formalin (not more than 0.1 mg/mL) are present. Neomycin sulfate (not more than 40 mcg/mL) remains following purification.

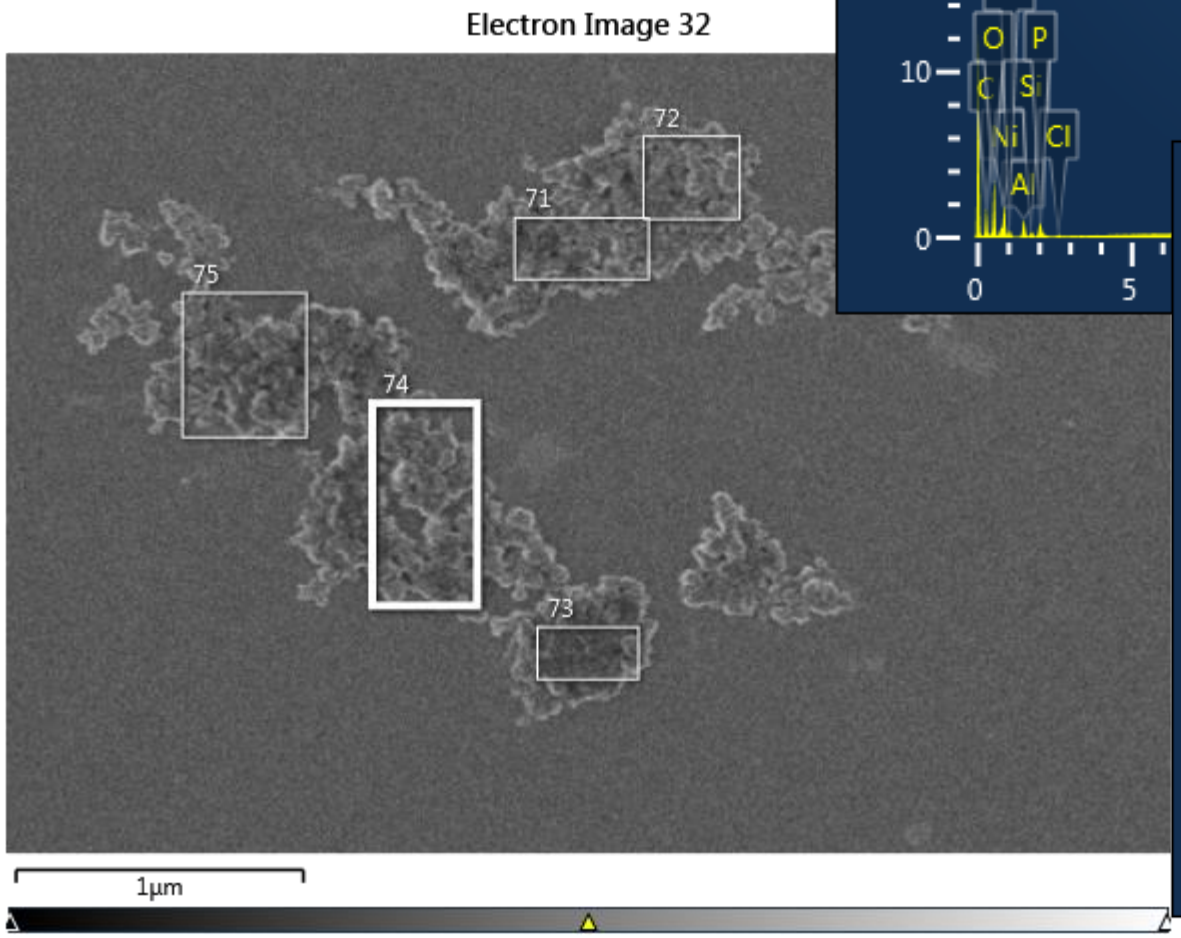
https://wayback.archive-it.org/7993/20170112211914/http://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM110035.pdf

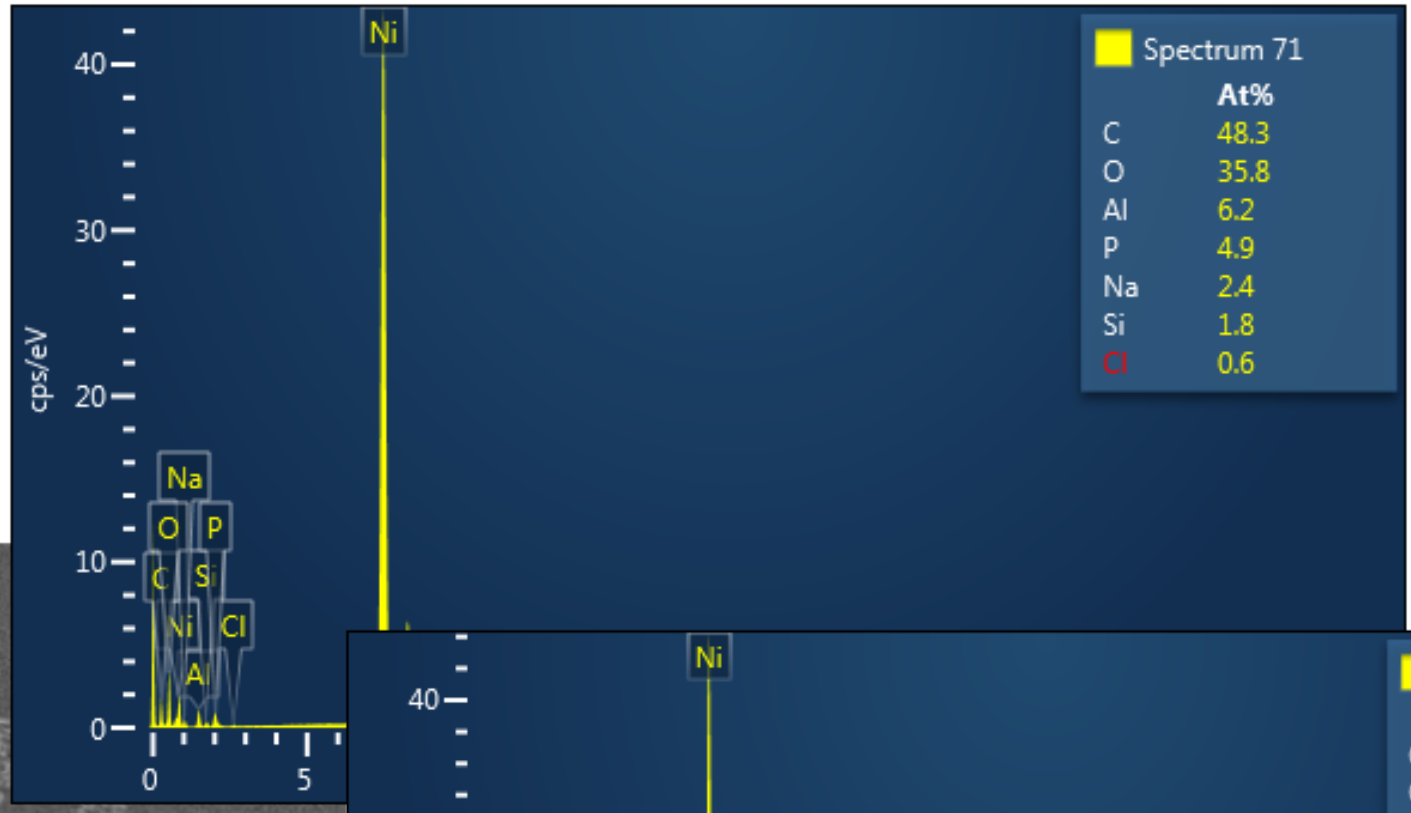
HAVRIX Adult – Hepatitis A Vaccine

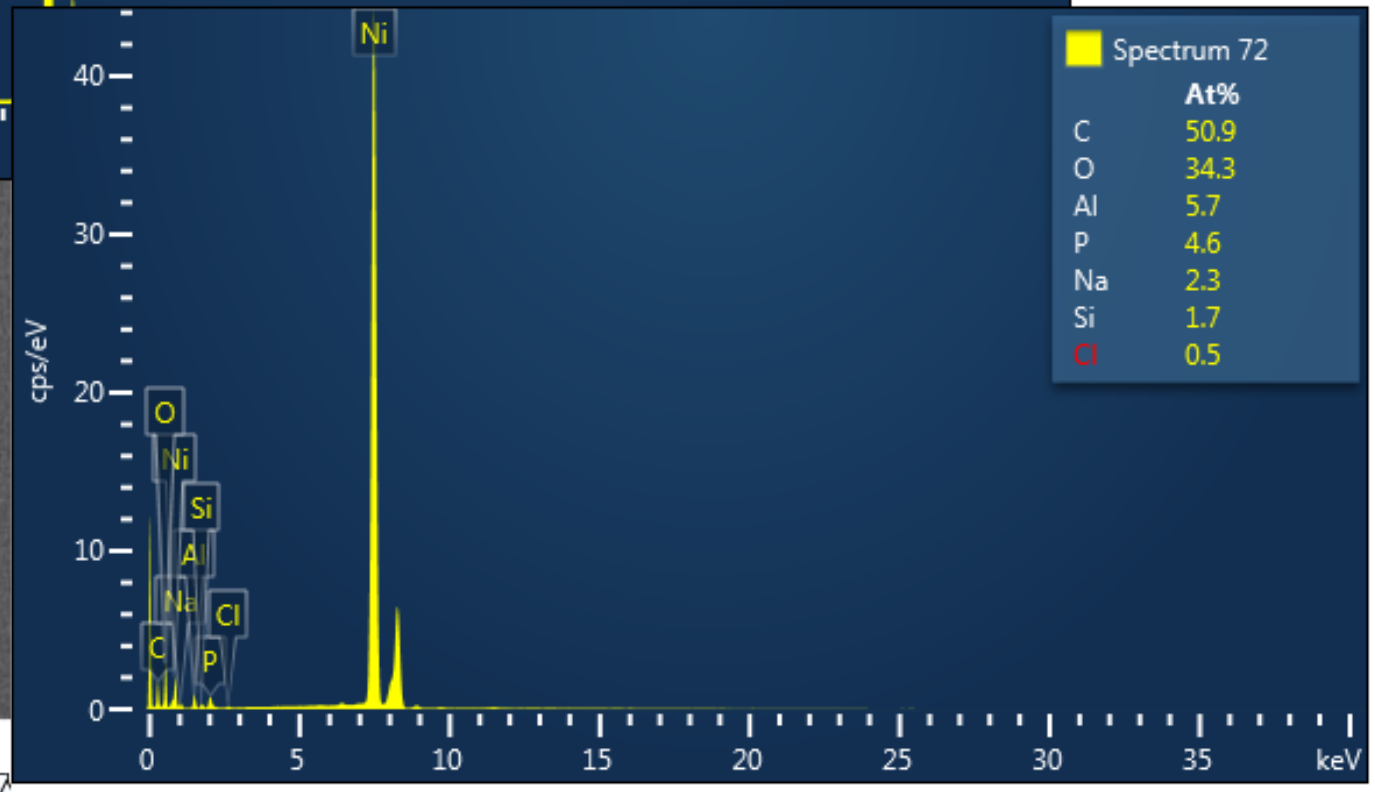




HAVRIX Adult - Hepatitis A Vaccine







HAVRIX Adult – Hepatitis A Vaccine